

# *Reviews* **APPLIED MECHANICS**

**A CRITICAL REVIEW OF THE WORLD LITERATURE IN APPLIED MECHANICS  
AND RELATED ENGINEERING SCIENCE**

## ANNUAL INDEX

**Volume 22**

**January—December 1969**

Subject Index.....Page 1      Author Index.....Page 59

Supplemental Journal Listing.....Page 267

Section 2      Vol. 23, No. 4      April 1970  
In two sections

# APPLIED MECHANICS

# Reviews

VOL. 23, NO. 4

SECTION 2

APRIL 1970

## SPONSORS

The American Society of Mechanical Engineers / National Science Foundation  
Office of Naval Research / Southwest Research Institute

## EDITOR

Stephen Juhasz

## EDITORIAL ADVISOR

Martin Goland

## HONORARY EDITOR

Stephen Timoshenko

## TECHNICAL EDITORS

Matthew Abbona  
Ottilie M. Amminger

Philip H. Francis

## ASSOCIATE EDITORS

H. Norman Abramson  
Nicolae E. Cristescu  
Yuan-Cheng Fung  
Tadeusz Iwinski  
John Laufer  
William A. Nash

Eugene A. Ripperger  
William R. Sears  
Joseph C. Shipman  
Victor Szebehely  
Itiro Tani

## ASSISTANT EDITORS

Chester Schiff

Vicki Smyer

## EDITORIAL ASSISTANTS

Sheryl Billings  
Jane Demmer  
Evelyn Dubois

Etha Kidder  
Gracia Sandager

## LIBRARIANS

Maureen D. Funnell

Edwin Vaught

## OFFICE MANAGER

Edward J. Vincent

## TECHNICAL PUBLISHING MANAGER, ASME

Jos. Sansone

## DIRECTOR, COMMUNICATIONS, ASME

Chase O. Sanderson

## OFFICERS OF THE ASME

Donald E. Marlowe, *President*  
O. B. Schier, II, *Exec. Dir. & Sec'y.*

## POLICY BOARD, COMMUNICATIONS, ASME

D. C. Drucker, *Chairman and Vice-President*  
R. E. Abbott  
M. C. Beekman  
G. P. Cooper  
K. A. Gardner  
F. J. Heinze  
N. H. Jasper  
W. R. Larson  
J. O. Stephens  
J. Vegosen

## HOW TO OBTAIN COPIES OF ARTICLES INDEXED

Photocopy or microfilm copies of articles indexed in this issue will be provided whenever possible. Orders should specify the APPLIED MECHANICS REVIEWS volume and review number.

Except as indicated below, address orders to LINDA HALL LIBRARY, 5109 Cherry Street, Kansas City, Mo. 64110, and include remittance to cover costs. Orders to Linda Hall Library may also be placed by teletype, using the number KC334. Complete copies of the articles reviewed in Referativnyi Zhurnal and reprinted in AMR are not often received by the editors of AMR or by Linda Hall Library and therefore are often not available. Photocopy costs are 35¢ for each page of the article photocopied, minimum charge \$1.25; microfilm costs include a service charge of 50¢ per article plus 3¢ per double page, minimum charge \$1.25. *The applicant assumes responsibility for questions of copyright arising from copying and the use made of copies. Copyright material will not be reproduced beyond recognized "fair use" without consent of the copyright owner.*

To secure copies of reviewed papers from English-translated issues of Russian journals, apply to the English language publisher given in the review heading. Photocopying of such translations is often expressly forbidden. Costs will vary with the publisher.

## DEPOSITORY:

Linda Hall Library  
5109 Cherry Street, Kansas City, Missouri 64110

## EDITORIAL OFFICE:

Southwest Research Institute  
P.O. Box 28510, San Antonio, Texas 78228

## PUBLISHER AND SUBSCRIPTION OFFICE:

The American Society of Mechanical Engineers  
345 East 47th Street, New York, N. Y. 10017

APPLIED MECHANICS REVIEWS, April 1970, Vol. 23, No. 4 (in two sections). Published monthly by The American Society of Mechanical Engineers at 20th and Northampton Streets, Easton, Pa., U.S.A. Price \$7.50 per copy, \$80.00 a year (\$64.00 a year to ASME members). Add \$1.50 for postage to all countries outside the United States and Canada. By-Laws: The Society shall not be responsible for statements or opinions advanced in papers or printed in its publications (B13, Par. 4) . . . Second class postage paid at Easton, Pa. © Copyright, 1970, by The American Society of Mechanical Engineers.



# Subject Index to Applied Mechanics Reviews

Volume 22, January-December 1969

THE TABULATING EQUIPMENT USED FOR PRINTING THE INDEX WAS ONLY UPPER CASE LETTERS. FOR THIS REASON AN ASTERISK IS USED BEFORE AND AFTER THE SEE AND SEE ALSO WORDINGS. THE MAIN AND SUB-HEADINGS ARE DIFFERENTIATED BY INDENTATION. SUBHEADINGS IN THE SEE ALSO GROUPS ARE SEPARATED FROM THE MAIN HEADINGS BY COMMAS. FOR EXAMPLE \*SEE ALSO\* STREAM, NATURAL

A

## ABLATION

571 572 573 574 1125 1251 1867 1999 2001 2002  
2003 2814 2815 3710 3718 4741 5553 6426 7283 7284  
8099 8100 8946 9669 9840

## ABSORPTION

9927

ABSORPTION OF SOUND--- \*SEE\* SOUND, ABSORPTION

## ACCELERATION MEASUREMENT

2425 2426 3255 3274 8389 9460

\*SEE ALSO\*--- PIEZOELECTRICS

## ACOUSTIC PROPERTIES OF MATERIALS

676 1800 1896 2500 7859 8673

## ACOUSTICS

900 711 773 1351 1352 1358 1359 1360 1369 1370  
1400 1461 2102 2106 2253 2925 2927 4658 4704 5109  
5682 6003 6508 6819 7192 7196 7367 7371 7374 7387  
7388 7420 8173 8180 8556 9098 9063 9833 9922 9923  
9935 9936 9964

\*SEE ALSO\*--- BOUNDARY LAYER, NOISE -- INSTRUMENT  
ENGINEERING, ACOUSTICAL -- NOISE -- SOUND --  
VIBRATION -- WAVES, ACOUSTIC

## ADAPTIVE SYSTEMS

67 1544 1545 1547 1548 2272 2273 3085 4904 4909  
4916 5809 7524 9264

\*SEE ALSO\*--- AUTOMATIC CONTROL

## ADHESIVES

1056 2509 4055 4311 9616

## ADSORPTION

4055 9101

## AERODYNAMIC COEFFICIENTS

1137 1138 1144 1146 1875 1877 1878 1879 1883 1884  
1889 1891 2627 2689 2692 2693 2695 2706 2707 2741  
2742 2888 4453 4617 4621 5410 5412 5413 5415 5417  
5421 6310 6311 6312 6315 6316 6322 6324 6325 6326  
6369 7155 7156 7159 7160 7166 7340 7488 8012 8014  
8015 8017 8018 8819 8820 8821 8825 9743 9747 9751

## AERODYNAMIC COEFFICIENTS \*CONTINUED\*

### DRAW COEFFICIENT

1887 2698 2700 2701 3562 3570 3571 3572 7161 7162  
7163 8877

### LIFT COEFFICIENT

3567 8816 8824 8826 8877 8945 9750 9761

### MOMENT COEFFICIENT

8824

### STABILITY DERIVATIVES

1880 1893 2628 2706 3569 7159 8164 8818 8827 9748  
9749 9752 9753 9754 9756

## AERODYNAMIC HEATING

2699 2742 3570 6325 7980 9824

## AERODYNAMIC INTERFERENCE

1141 1142 1143 1885 2697 3565 3568 5411 5415 5417  
6325 7156 7157 7199 8828 9028 9219

## BASE PRESSURE

3572

## BASE PRESSURE, SINGLE JET

6320 6321

## GROUND EFFECT

639 640 641 642 4624 4625 4626 4627 4628 6481  
6484 6485 6486 7345 9896 9899

\*SEE ALSO\*--- GROUND EFFECT MACHINES

## AEROELASTICITY

2707 3801 3802

## DYNAMIC

1317 1319 1320 1321 2065 2066 2884 3596 5602 5603  
5607 5609 5610 6620 7335 7336 7338 7339 8160 8161  
8162 9021 9891 9892 9894

## PANELS

1318 3798 3799 3800 9894 9895

## STATIC

1884 3566 5412 9024

\*SEE ALSO\*--- FLUTTER -- GUST LOADS --

HYDROELASTICITY -- OSCILLATIONS IN FLUIDS -- WINGS

## AERONAUTICS

9159

Review Numbers: 1-764 765-1450 1451-2178 2179-2991 2992-3900 3901-4817 4818-5750 5751-6601 6602-7476 7477-8309 8310-9172 9173-10008  
Issue: January February March April May June July August September October November December

- AEROSOLS  
695 697 1378 2639 2800 3828 4359 4544 4729 4730  
4731 5697 7408 7412 7413 7414 7415 8207 8216 8218  
9100 9989
- AEROTHERMOACOUSTICS  
2911 5436
- AEROTHERMOCHEMISTRY  
443 1179 2631 2682 3828 4415 4416 6301 7117 7142  
7969 8018 8801 9726
- FROZEN FLOW  
9885
- NON-EQUILIBRIUM FLOW  
424 425 1849 1854 2640 4399 4457 4471 5361 6273  
7111 7119 7158 9696
- AEROTHERMODYNAMICS  
5462 8030 8893
- \*SEE ALSO\*--- AERODYNAMIC HEATING -- HEAT TRANSFER,  
BOUNDARY LAYER
- AGING  
4053 9325
- AIRCONDITIONING--- \*SEE\* REFRIGERATION,  
AIRCONDITIONING
- AIRCRAFT STRUCTURES--- \*SEE\* STRUCTURES, AIRPLANE
- AIRFOIL CASCADES--- \*SEE\* CASCADES OF AIRFOILS
- AIRFOIL CHARACTERISTICS  
1876 3085 3569 3962 4880 8821 9024
- DESIGN  
1047 1753 1888 1890 2698 2705 3560 3565 3568 3573  
4619 4621 5421 5536 6313 6314 7908 7909 7910 8012  
8817 9024 9591 9824
- DYNAMIC LOADS  
201 203 1680 2066 2888 4620 6848 6851 7341 7902  
9025 9891
- HANDLING QUALITIES  
2888 4621 6482 7344 7360 8020 9030 9896
- LATERAL STABILITY  
2703 2706 3569 5416 5425 6318 6482 7166 7342 8820  
9027 9030 9231
- LONGITUDINAL STABILITY  
1892 3962 5416 6318 6482 6664 7160 7342 7343 7345  
8020 8818 8820 9027 9030
- SPIN RECOVERY  
3569 5407 8830 9896
- \*SEE ALSO\*--- AERODYNAMIC COEFFICIENTS --  
GLIDERS -- HIGH LIFT DEVICES -- ICING --  
JET FLAPS -- NOISE, AIRCRAFT -- PERFORMANCE,  
AIRPLANES -- STRUCTURES, AIRPLANE -- VIBRATION,  
AIRPLANES
- AIR PREHEATERS  
7279 9838
- AIRSHIPS--- \*SEE\* BALLOONS AND AIRSHIPS
- ALGEBRAIC EQUATIONS--- \*SEE\* EQUATIONS, ALGEBRAIC
- ALUMINUM  
272 882 891 1012 1602 1609 2016 2341 2342 2465  
2491 2567 3304 3310 3814 4054 4230 4238 4773 4955  
5172 5191 5714 6090 6113 6742 6749 6950 7655 7656  
7838 8431 8437 9333 9508 9552
- ANALOG COMPUTERS--- \*SEE\* COMPUTING TECHNIQUES,  
ANALOG
- ANALOGIES  
793 794 8603
- ELECTRICAL  
797 798 1477 1478 1479 2214 3029 4858 4859 4861  
5793 6695 7063 7199 7504 7520 7521
- FLUID MECHANICS  
792 2217 3442 4401 6303 7949 8007 9788
- HEAT TRANSFER  
29 1228 3028 7523
- HYDRAULIC  
795 796 7522
- SOLID MECHANICS  
29 2215 2217 4860 5892 6732
- ANALYSIS, NUMERICAL--- \*SEE\* NUMERICAL ANALYSIS
- ANEMOMETER  
500 2684 6309 6358 7190 8871 8872 8873 8875
- HOT-WIRE  
2686 4486 5404 5486 8067 10008
- \*SEE ALSO\*--- TURBULENCE, MEASUREMENTS --  
VELOCITY MEASUREMENT
- ANISOTROPIC BEAMS--- \*SEE\* BEAMS, ANISOTROPIC
- ANISOTROPIC MEDIA  
109 1607 2324 2339 3137 4035 4053 6079 6911 7025  
7927 8449
- ANISOTROPIC PLATES--- \*SEE\* PLATES, ANISOTROPIC
- ANISOTROPIC SHELLS--- \*SEE\* SHELLS, ANISOTROPIC
- ANTENNAS  
8694
- \*SEE ALSO\*--- TOWERS
- APPROXIMATIONS--- \*SEE\* SERIES EXPANSION AND  
OTHER APPROXIMATIONS
- ARCHES AND VAULTS  
1042 4276 9580
- \*SEE ALSO\*--- BUCKLING, ARCHES AND VAULTS
- ARCJETS--- \*SEE\* JET ENGINES, ARCJET
- ARCS  
7259
- JETS  
3754 3557 9020 9820
- MAGNETICALLY CONSTRAINED  
633 1289 1313 2853 2857 3773 4601 5585 5589 5592  
8147 8999 9876
- ARTIFICIAL SATELLITES  
650 3811 7353
- GEODETIC SATELLITES  
9116
- HIGH ALTITUDE ATMOSPHERE  
9990
- ORBIT DECAY-LIFETIME  
1349 3810 4641 9032
- TWENTY FOUR HOUR SATELLITES  
4645

## ARTIFICIAL SATELLITES \*CONTINUED\*

WEATHER SATELLITES  
7431 9990

\*SEE ALSO\*--- CELESTIAL MECHANICS -- ORBIT  
MECHANICS -- RADIATION PRESSURE -- REENTRY --  
RENDEZVOUS -- SATELLITES

## ASTRONAUTICS

655 2081 2788 2889

SPACE HAZARDS  
1347 2086

\*SEE ALSO\*--- ARTIFICIAL SATELLITES --  
ASTROPHYSICS -- CELESTIAL MECHANICS --  
INTERPLANETARY PROBES -- LUNAR MISSIONS --  
MISSILES -- ORBIT MECHANICS -- RADIATION  
PRESSURE -- REENTRY -- RENDEZVOUS -- ROCKETS --  
SPACE NAVIGATION AND GUIDANCE -- SPACE POWER --  
SPACE VEHICLE DESIGN -- SPACE VEHICLE PROPULSION --  
SPACE VEHICLE STABILIZATION

## ASTROPHYSICS

861 2069 2784 4818 6575

EXTRAGALACTIC SYSTEM  
3770

GALACTIC SYSTEM  
2073 3805 4590 6492 7325 7356

SOLAR SYSTEM  
2090 2861 3781 3789 3851 3853 3856 4647 4749 8249  
8252 8253 8254 9031 9012 9044 9116 9902 9903

\*SEE ALSO\*--- ASTRONAUTICS -- CELESTIAL  
MECHANICS -- ORBIT MECHANICS

ATMOSPHERE--- \*SEE\* METEOROLOGY, ATMOSPHERE

ATOMIZATION--- \*SEE\* SPRAYS

ATTENUATION OF SOUND--- \*SEE\* SOUND, ATTENUATION

AUTOFRETTAGE  
8707

\*SEE ALSO\*--- STRUCTURES, PRESTRESSED

AUTOMATA--- \*SEE\* LEARNING SYSTEMS, AUTOMATA

## AUTOMATIC CONTROL

37 48 799 2251 2275 2996 3037 3068 3099 3801  
3975 4545 4550 4881 4907 5813 5834 6695 7201 8338  
8340 9227 9228 9229 9241 9263  
OCTOBER FEATURE ARTICLE

ANALOG COMPUTER CONTROL  
824 1476 3049 3064

COMPENSATION  
1513 1517 3941 5820 6648 6652 7552 8020 8362

DESCRIBING FUNCTIONS  
1453 1488 1494 2228 2259 3945 5800 6659 6662 6668  
7533 7538

DESIGN AND SYNTHESIS  
841 854 1498 1515 1516 1523 2235 2270 3050 3056  
3062 3939 3948 3957 3959 3960 3980 4863 4879 4892  
5799 5803 5822 6650 6653 6664 7552 7553 7563 8361  
8369 8371 9239

DIGITAL COMPUTER CONTROL  
45 50 820 821 822 825 1547 1549 2201 2240  
2241 2242 3058 3060 3081 3967 4877 5782 5814 5818  
6670 8358 9244 9245

DISCRETE AND SAMPLED DATA SYSTEMS  
42 804 811 812 813 814 815 816 826 1497

## AUTOMATIC CONTROL \*CONTINUED\*

DISCRETE AND SAMPLED DATA SYSTEMS \*CONTINUED\*  
1531 2237 2238 3055 3081 3952 5802 5810 6646 6666  
6667 6668 7537 7541 7549

DISTRIBUTED PARAMETER SYSTEMS  
829 850 1498 5785 7545

ELECTRICAL COMPONENTS  
53 1510 2255 7551 7556 9251 9252

ELECTROMECHANICAL COMPONENTS  
831 2249 2254 3059 3976 4877 9230 9511

FREQUENCY DOMAIN TECHNIQUES  
49 2232 3035 3047 3050 3051 4863 6651 6652 7548  
8337 8339 9228 9230 9255

HYBRID SYSTEMS  
804 2238 5810

HYDRAULIC COMPONENTS  
52 53 831 1510 7534 9249

IDENTIFICATION  
809 810 830 1495 2224 2236 2246 2252 3049 3971  
4869 4873 4905 5835 6665 6666 7530 7560 8344 9240

LARGE SYSTEMS  
35 2192 2193 2233 3054 7564

LOGICAL CIRCUITS  
1441 1552 2228 3070 3084 9250 9256 9263 9265

MECHANICAL COMPONENTS  
827 828 830 7585

MODELING  
36 762 819 852 1495 1546 2178 2984 3896 3898  
6665 7542 8337 9251 9257

MODULATED SYSTEMS  
804 846 1484 2242 2265 3954 3990 4900 9262

MULTIVARIABLE SYSTEMS  
802 821 832 1517 2248 3031 3061 3074 3959 3960  
4878 5803 5815 5816 7524 7527 8360

NONLINEAR SYSTEM ANALYSIS  
804 842 1487 1499 1501 2219 2225 2226 2227 4864  
4865 4875 4880 4902 5756 5758 5802 5803 6659 6661  
6669 7525 7535 7585 8341 8344

NONLINEAR SYSTEM DESIGN  
853 1513 1541 3063 3957 5817 7537 7550 9233 9235

NONLINEAR SYSTEM RESPONSE  
806 1488 1489 1490 1503 2221 2247 3032 3038 3039  
3042 3977 6655 6657 6662 7531 7533 7536 7540 8342  
9234

ON-OFF AND RELAY SYSTEMS  
854 1494 1538 2259 3940 4871 6653 7531 8342 9231

OPEN LOOP SYSTEMS  
38 763 4888

PERFORMANCE  
34 2225 2235 2245 3033 3040 3055 3940 6680 7532  
8354 9278

PHASE LOCKED LOOPS  
4876

PNEUMATIC COMPONENTS  
829 6673 9249

PROCESSES  
64 65 762 763 769 772 781 820 822 851  
1507 1539 2206 3064 3967 3970 3972 4877 4882 5783  
5787 5832 5835 6592 6627 8358

## AUTOMATIC CONTROL \*CONTINUED\*

## RELIABILITY

822 2193 3052 8670 6682

## SENSITIVITY

34 35 38 805 1485 2220 3054 3939 5816 6645  
7527 8346

## SEQUENTIAL MACHINES

856 1509 5818 9254

## SWITCHING CIRCUITS

6671

## TIME DOMAIN TECHNIQUES

3039 3051 4870 7528 9232 9247 9248

## TIME VARYING SYSTEMS

47 811 1480 1485 2248 3040 3942 4672 5812 5816  
6646 7525 7528

\*SEE ALSO\*--- ADAPTIVE SYSTEMS -- BIOCONTROL --  
CONTROL STABILITY -- CYBERNETICS -- DATA  
ANALYSIS -- FLUIDICS --  
GYROSCOPICS -- INSTRUMENT ENGINEERING --  
LEARNING SYSTEMS -- MAN-MACHINE SYSTEMS --  
NUMERICAL CONTROL -- OPERATIONAL METHODS --  
OPTIMAL AUTOMATIC CONTROL -- SIMULATION --  
STATISTICAL CONTROL THEORY -- THRUST, CONTROL --  
TIME DELAY SYSTEMS -- TIME SHARING TECHNIQUES --  
TOPOLOGICAL TECHNIQUES -- VARIATIONAL METHODS,  
AUTOMATIC CONTROL -- VIBRATION

AUTOMOBILES--- \*SEE\* VEHICLES, LAND

## B

## BACKWATER CURVES

4062

BALANCING--- \*SEE\* VIBRATION, BALANCING

BALL BEARINGS--- \*SEE\* BEARINGS, BALL

## BALLISTIC TRAJECTORY

9050

## BALLISTICS

9917

## INTERIOR

2023 2097 3815 9046 9047 9048

## RANGE

9050 9915

\*SEE ALSO\*--- DETONATION AND DEFLAGRATION --  
EXPLOSIVES -- GUNS -- IMPACT, PENETRATION --  
MISSILES -- PROJECTILES

## BALLOONS AND AIRSHIPS

1928

## BASE FLOW

4404 8003

\*SEE ALSO\*--- WAKES, BASE FLOW

## BEAMS

1617 2386 4116 5789 6130 7002 7662 7666 7868 7885  
8687 9414 9415

## ANISOTROPIC

885 3160 5874 8347

## BEAM-COLUMNS

1050 5960

## BEAMS \*CONTINUED\*

## BENDING

123 869 873 1586 2347 3156 3157 3163 4060 4986  
4989 5895 5909 6737 6751 6752 6753 6759 6816 7659  
7665 7673 7684 8453 8514 9339

## BOX

124 312 3018 7873

## CANTILEVER

4127 4148 5898 7877 8536 8685

## COMBINED LOADING

868 894 917 1615 1631 4059 4994 5915 5959 7608  
7876

## COMPOSITE

128 893 1600 1613 2353 2532 5877 5912 5913 5914  
5995 8417 8534 8688 9569

## CONTINUOUS

199 326 2215 2337 2403 4990 5215 5217 6817 6862  
6979 7683 9577

## CREEP

107 1759 2361 5901 7660

## CURVED

125 126 895 1620 2349 2350 2351 2354 3162 4099  
4124 4164 5947 6755 6756 7664 7667 8454

## CUTOUTS

2313 3154 5219 7605

## DYNAMIC LOADING

199 778 1757 1762 3269 4125 4175 5121 5232 5992  
5995 6027 6029 6983 8533 8534 8536 8540 8557 8560  
8689 9401 9467

## INTERSECTING

150 9434

## LARGE DISPLACEMENTS

1619 3155 3159 4988 4991 4993 8455 9340

## NONHOMOGENEOUS

3164 5094 5649 5911 6179 6813 6814

## OPEN SECTION

2385 7717 8458

## PLASTIC DEFORMATION

121 885 1616 2337 2460 3391 3404 4212 4260 5173  
5214 5895 5898 5901 6737 6740 6978 7164 7661 7666

## PRESTRESSED

1759 5232 7759

## REINFORCED CONCRETE

1758 2348 2352 2533 2534 4263 4264 5222 5995 6170  
6173 6980 6981 6990 7876 7880 7881 8690 9572

## TWIN SECTION

3020 8560

## VARIABLE CROSS SECTION

324 4127 4165 7761 8182 8540 9469 10006

\*SEE ALSO\*--- BUCKLING, BEAMS -- ELASTIC  
FOUNDATIONS, BEAMS -- ENERGY METHODS -- FATIGUE,  
BEAMS -- GIRDERS -- IMPACT, BEAMS --  
INFLUENCE LINES -- LIMIT DESIGN, BEAMS -- RAILS --  
STRUCTURES, CUTOUTS -- STRUCTURES, STATICALLY  
INDETERMINATE -- THERMOELASTICITY, BEAMS --  
TORSION, BEAMS -- TORSION, SHAFTS -- VIBRATION,  
BEAMS -- WOOD, TIMBER AND PLYWOOD

BEARING CAPACITY--- \*SEE\* SOIL MECHANICS, BEARING

- CAPACITY
- BEARINGS  
4237 6134 7448 9144 9991
- BALL  
740 1435 2172 2175 2978 3879 4794 5999 6583 7774  
9442
- DYNAMIC EFFECTS  
189 6855 6861
- GAS LUBRICATED  
185 742 1430 1433 2980 3880 3881 4791 4792 4793  
7457 7458 7460 8290 8292 9148 9149 9150 9152 9995  
1433 1478 2980 3880 3881 9995
- JOURNAL  
735 744 745 1429 1434 2166 2169 2170 2171 2173  
2174 2176 3878 3882 4780 4793 4799 5728 6193 6582  
7454 7457 7458 7460 8286 8291 8293 8294 9148 9149  
9150 9151 9153
- LIQUID LUBRICATED  
1434 3882 8293
- LIQUID METAL  
743 744
- ROLLER  
741 2912 4796
- SLIDER  
737 742 743 1431 1779 2556 2557 2558 2559 2560  
7008 9994
- SOLID LUBRICATED  
1432 5726 5727
- THERMAL EFFECT  
534 7454 9148
- THRUST  
735 739 1428 6583 8295
- UNCONVENTIONAL-ELECTROSTATIC, MAGNETIC, ACOUSTIC, ET  
2556 2557 2558 2559 2560 2979 4791 4797 6584 7008  
8295 9153
- UNLUBRICATED  
2556 2557 2558 2559 2560 7008
- \*SEE ALSO--- FATIGUE, BEARINGS -- VIBRATION,  
BEARINGS
- BED
- FLUIDIZED  
688 689 1997 2129 2786 3823 5658 5659 5664 6397  
7402 7403 7404 8206 8231 9102
- PACKED  
1382 1996 1997 2132 2133 9102 9968 9969
- \*SEE ALSO--- HEAT TRANSFER, FLUIDIZED BEDS --  
POROUS MEDIA, FLUIDIZED BEDS -- SEDIMENT TRANSPORT
- BELLOWS--- \*SEE\* SHELLS, BELLOWS
- BELTS  
1768 2548 2564 3251 4126 6188 7010 8705
- \*SEE ALSO--- CABLES AND FLEXIBLE FILAMENTS --  
CHAINS
- BENDING--- \*SEE\* UNDER MODIFIER
- BENTS--- \*SEE\* FRAMES AND BENTS
- BERYLLIUM  
2568 4218
- BIBLIOGRAPHY  
1397 1426 2982 3023 3847 6487 6575
- \*SEE ALSO--- UNDER MODIFIER
- BIOCONTROL  
758 762 763 1441 1450 2178 2984 3896 3897 4808  
4812 6592 7461 10005  
DECEMBER FEATURE ARTICLE
- \*SEE ALSO--- MAN-MACHINE SYSTEMS
- BIODYNAMICS  
747 748 761 1436 1448 1449 2985 2988 2990 3885  
3886 3888 3889 3890 3895 3898 3899 4801 4803 4806  
5730 5731 5738 5739 5741 5743 6591 7461 7462 7466  
7467 7469 8177 8297 8299 8308 9156 9157 9158 9159  
9166 9999  
DECEMBER FEATURE ARTICLE
- \*SEE ALSO--- HUMAN ENGINEERING -- VIBRATION, HUMAN
- BIOMECHANICS  
747 748 1366 1368 1442 1445 1447 1465 2178 2983  
3890 3898 3901 4805 4807 4808 4810 4811 4813 4814  
5733 5735 5737 5738 5739 5742 5745 5747 5749 5791  
5794 6529 6589 6590 6593 6594 6595 6596 6597 6598  
6599 6603 7380 7463 7464 7469 7473 7474 7476 8299  
8301 8302 8305 8307 9154 9155 9158 9161 9163 9171  
10001 10006 10007 10008 DECEMBER FEATURE ARTICLE
- CARDIO-VASCULAR  
753 755 756 757 758 760 761 1437 1438 1439  
1443 1444 1446 1931 2985 2986 3891 3894 4804 4809  
4815 5732 5740 5778 6587 6588 7278 7461 7468 7470  
7471 7472 7475 8300 8303 8304 8306 8309 9162 9164  
9165 9167 9170 9644 10000 10002 10003 10004
- CIRCULATION  
753 792 1437 1440 1441 1443 1450 3892 3897 7461  
7471 7475 8215
- LOCOMOTION  
2208 3889 3893 7461 8298 9157 9166 9168 9169
- MUSCULO-SKELETAL  
751 752 754 1436 1793 2981 2982 2984 3885 3886  
4801 4803 4812 7461 8427 9156 9998 9999
- PROSTHETIC DEVICES  
763 2982 2988 2989 2990 3892 6592 7461 7462 9156  
9166 9167 9168 9169 10000 10005
- STRUCTURAL SUPPORT  
3887 7461
- TISSUES, ORGANS AND CAVITIES  
750 751 752 754 755 759 1448 1449 1793 2987  
3886 3893 4802 5734 5736 6586 7461 7465 8301 8427  
9070 9160
- \*SEE ALSO--- HUMAN ENGINEERING -- KINEMATICS,  
HUMAN BODY -- MAN-MACHINE SYSTEMS -- PLASMA  
(MEDICAL)
- BLADES--- \*SEE\* UNDER MODIFIER
- BLAST LOADING--- \*SEE\* EXPLOSION, EFFECTS ON  
STRUCTURES
- BLAST WAVES--- \*SEE\* WAVES, BLAST
- BLOWERS--- \*SEE\* COMPRESSORS
- BLOWOFF--- \*SEE\* COMBUSTION, BLOWOFF



## BODIES, COMPRESSIBLE FLOW PAST

1141 1885 1889 2705 4417 6314 6315 7985 9742 9746  
9756

## BLUNT

403 1102 1837 2626 2627 2628 4370 5326 7117 9671

## BODIES OF REVOLUTION

2623 3788 4580 4605 5319 5563 6312 6369 7166 8775  
8828 9666 9667 9703 9759 9864

## CONICAL

404 1103 1136 1144 1875 1887 2666 5370 5411 6298  
6318 7095 7098 8017 8808 9718

## CYLINDRICAL

2622 5389 5392

## PLANE SURFACES

1303 5410 6325 9750 9862

## SLENDER

1304 5364 5421 5702 6456 7094 7118 8778

## SPHERICAL

405 2625 3519 4378 6326 7986 8143 9704

## WEDGES

448 1867 3790 7971 7972

## BODIES, INCOMPRESSIBLE FLOW PAST

382 2691 3490 3500 3801 3593 3836 5288 5384 6254  
7067 7072 7942 7943 7947 8012 8751 9634 9638 9640

## BLUNT

381 1106 1121 5316 5329 5360 5396 6257 6455 7093  
7944

## BODIES OF REVOLUTION

2031 5591 6368 9780

## CONICAL

1107 7139 9678

## CYLINDRICAL

434 1085 2615 3506 5305 5308 6238 6251 6257 6510  
7068 7075 8763 8768 9650 9653 9656

## PLANE SURFACES

1816 2701 2843 3496 7922 7937 8113 9022 9861 9863

## SLENDER

1406 1412 2157 6476 7977 8310 9780

## SPHERICAL

594 1082 1813 1815 1818 2574 2607 3495 3498 3570  
4364 4414 4785 5596 7076 7405 7948 8754 8755 8759  
8771 9639 9656

## BOILERS

560 586 587 1032 1259 1505 1962 2799 3061 3707  
3969 4538 4542 4546 4548 4549 5494 5503 5509 5510  
5511 6156 7305 8091 8092 8389 8964 9235

\*SEE ALSO--- AIR PREHEATERS -- HEAT EXCHANGERS

BOILING--- \*SEE\* HEAT TRANSFER, BOILING

BOLTED JOINTS--- \*SEE\* JOINTS AND JOINING PROCESSES,  
BOLTED

## BORON

284

## BOUNDARY LAYER

434 440 450 452 1125 1134 1318 2652 2665 2672  
2704 3540 3547 4398 4399 4401 4617 5384 5387 5388  
5398 5399 6286 6289 6292 6293 6294 6295 6296 6301  
6630 7043 7133 7200 7437 7992 7995 7999 8000 8003  
8007 8012 8040 8796 8801 8807 8817 9669 9706 9710  
9713 9714 9715 9719 9720 9725 9811

## BOUNDARY LAYER \*CONTINUED\*

## AXISYMMETRIC

1866 2657 2660 5270 5379 7128 7129 7144 8004 9705  
9759

## BINARY FLOW

1866 2654 2809 4403 4416 4517 4555 5524 8795 8934  
8937

## BLOWING

441 448 1865 1866 2813 2816 3551 3553 3680 3719  
3720 4555 5386 5523 5524 5525 6405 6428 6475 7132  
7134 7286 7288 7289 7996 8060

## BOUNDARY FLEXIBILITY

6299

## BOUNDARY ROUGHNESS

4366 5306 5666 7163

## CHEMICAL REACTION

443 1872 2778 2808 4415 4416 5524 7142 9726

## COMBUSTION

3719

## COMPRESSIBLE FLOW, LAMINAR

435 436 442 607 629 1865 1866 2654 2658 2659  
2661 2863 3541 3545 3570 5389 5390 5391 6298 7120  
7231 7980 8005 8124 9721 9722

## JULY FEATURE ARTICLE

## COMPRESSIBLE FLOW, TURBULENT

441 449 1862 1886 2660 3688 4407 4409 6297 7162  
8072 8808 9716

## CONTROL

486 1124 4411 4413 4414 5389 5397 6219 7922 7961  
9708 9709

## FINITE DIFFERENCE SOLUTIONS

2200 5574

## HIGHER ORDER APPROXIMATIONS

2651 4400 4410 4417 4847 5270 5378 5381 6469 7128  
7127 7246 8764 8797 9705

## HYPERSONIC

443 1835 1867 1868 5385 5392 6271 6297 7134 8072  
8808 9692 9717 9718

## INCOMPRESSIBLE FLOW, LAMINAR

608 1076 1094 1122 1123 1861 2042 2572 2653 2662  
4405 5270 5294 5374 5492 6238 6288 7069 7070 7129  
7993

## JULY FEATURE ARTICLE

## INCOMPRESSIBLE FLOW, TURBULENT

438 439 1816 1863 1864 2147 2656 2663 3543 4761  
5380 5666 6305 7286 7289 7951 7961 8802 8803 8804  
9096 9711 9712 9734 9828

## INTEGRAL METHODS

436 2658 2660 2662 4413 4415 5375 5377 9380 6288  
7240 8794 9819

## INTERACTION WITH SHOCK

414 449 1111 1833 1881 2667 2668 3549 5383 7144  
9674

## MEASUREMENT AND EXPERIMENTAL TECHNIQUES

444 446 447 448 449 1862 1873 1874 2699 3542  
3550 3551 5395 5400 6238 6290 6297 7130 7131 7132  
7135 7138 7139 7443 7996 8802 9711 9717 9724 9727

## NOISE

2695

## REATTACHMENT

1862 4404 5306 7138 7141

## BOUNDARY LAYER \*CONTINUED\*

## ROTATING BODIES

444 2670 2671 2732 3492 4368 5294 5382 6241 8764  
9707

## SEPARATION

449 1109 1146 1867 1869 1871 2667 2726 3567 3686  
4410 5305 5375 5397 6238 6388 7026 7115 7138 7139  
9647 9722

## SIMILARITY SOLUTIONS

437 442 1861 1864 1872 2659 2663 3504 3543 3764  
3766 4312 4402 4403 4406 4408 5265 5374 5381 5382  
5390 5391 5492 6256 8250 8804 8805  
JULY FEATURE ARTICLE

## STABILITY

1870 1875 2621 2870 3496 3548 4313 4402 7128 7954  
8758 9648

## SUBLAYER, LAMINAR

5266 5394 6290 7951 7994

## THERMAL

436 437 439 451 1858 2653 2669 3542 3665 3668  
3671 3672 4519 4598 5386 5575 7997 7998 9827

## THREE-DIMENSIONAL

437 1122 1869 1874 2650 2661 2662 2663 4411 6298  
7135 8799 8800 9721

## TRANSITION

446 447 453 2664 2666 5266 5395 5396 5525 6300  
7073 7137 7181 8810 9717 9718 9723 9724

## UNSTEADY

451 1910 2669 2670 2671 3552 4368 4411 5376 5390  
6302 8004 8005 8049 8794

\*SEE ALSO--- AERODYNAMIC HEATING --  
AEROTHERMOCHEMISTRY -- COMBUSTION, BOUNDARY  
LAYER -- HEAT TRANSFER, BOUNDARY LAYER --  
NOISE, BOUNDARY LAYER -- SHEAR LAYER --  
SKIN FRICTION, FLUID FLOW -- SWIMMING  
PROPULSION -- WAKES

## BOUNDARY-VALUE PROBLEMS

4676 7489 7501 7575

## FLUID MECHANICS

2144 2145 2146 3489 4367 5288 6310 6311 6558 8751  
8760

## SOLID MECHANICS

223 933 1594 1605 2320 2326 2333 3302 4036 4162  
6883 7634 7778 7782 9326 9486

\*SEE ALSO--- EIGENVALUE PROBLEMS

## BRAKES

638 1142 3100 3605 7013 7448 9169

## BRASS

2472 6915 6953 6955 7647

## BRIDGES

332 333 334 338 1036 1043 1044 2542 3402 4135  
4136 4276 5240 5242 6109 6995 7848 7879 9579 9584  
9594

## DECKING

318 331 2543 3406 5243 6996 8698 9569 9582

## HIGHWAY

5241

## SUSPENSION

5606 6178 6977 7894 7895 9583

\*SEE ALSO--- VIBRATION, BRIDGES

## BRITTLE COATINGS

5165 9347

## BUBBLE DYNAMICS

390 678 698 699 1088 1236 1237 1238 1241 1817  
1988 2792 2945 2946 3833 4541 4557 4726 5623 5628  
6414 6416 7059 7173 7266 7267 7269 7271 7290 7949  
8763 8928 8931 8932 8942 8943 9835 9960 9965 9966

## CAVITATION FLOW

700 6232 9918

\*SEE ALSO--- BOUNDARY LAYER, BINARY FLOW

## BUCKLING

156 159 2379 3193 3195 3199 3201 4929 5034 5035  
5043 5958 5968 6787 8163 8496 8497 9386 9387

## ARCHES AND VAULTS

918 924 1651 1653 2387 3202 3203 4097 4098 4107  
5972 7729 8506 8507

## BEAMS, ELASTIC

919 3196 3198 4094 4095 4106 5038 5039 5042 5044  
5048 6779 6780 6781 7725 7727 7733 8498 8499 8500  
8502 9388 9390 9391

## BEAMS, PLASTIC

2383 3197 4110 5045 5066 5980

## CREEP

5065 6791 7748

## DYNAMIC LOADING

1658 2396 3215 4111 4112 6783 7786 9397 9398

## EXPERIMENTAL

6788 8504

## FRAMES

157 3200 5964

## GIRDERS

4065 4096

## LARGE DISPLACEMENTS

1566 5040 6750 8456

## NONLINEAR

158 9389

## PIPES AND TUBES UNDER PRESSURE

1603 2393 3214 5054 5061 5063 5951 6833 7709 8518  
8519 9399

## PLASTIC

2382 4093 4100 5964 7737 8518 9396 9953

## PLATES

906 920 921 1655 2380 2390 2391 2392 3206 3207  
4100 4101 5048 5049 5050 5051 5070 5965 5966 5967  
5974 5979 7680 7724 7734 7735 7747 8512 8513 8515  
8516 8517 8547 9284 9392 9393 9564 9953

## SANDWICH CONSTRUCTION

161 162 907 2395 3210 4130 8501 9394 9396

## SHELLS

1637 1656 3208 3210 5053 5058 5068 5969 6784 6790  
7746 7786 8522 8525 9393 9398 9400

## SHELLS, AXISYMMETRIC

160 916 922 923 1373 1657 2394 2918 3209 3212  
4114 5052 5056 5057 5059 5060 5061 5062 5067 5069  
5971 5975 5976 5977 5978 6783 6785 6786 6789 6792  
7707 7736 7737 7738 7744 7745 8508 8524 9395

## SHELLS, STIFFENED

1654 3211 3213 4102 5055 5064 8923

## STRUCTURES

163 1652 2389 2397 3192 3204 3205 5038 5041 5046

## BUCKLING \*CONTINUED\*

## STRUCTURES \*CONTINUED\*

5047 5070 5961 5962 5963 5981 6778 6982 7730 7732  
7826 8503 8505 8509 8511 9285

## THERMAL

2125 2126 2934 7726 9089

## TORSIONAL

1652 2384 3194

\*SEE ALSO\*--- COLUMNS -- COMBINED LOADS

BUFFETING--- \*SEE\* GUST LOADS

BUILDINGS--- \*SEE\* STRUCTURES, BUILDINGS

## BULKHEADS

7937

## BURNERS

2026 6443

## GASEOUS FUEL

7301 8963 8965

BURNING VELOCITY--- \*SEE\* FLAME, PROPAGATION

## C

## CABLES AND FLEXIBLE FILAMENTS

278 340 1687 1704 1771 2177 2428 4126 4143 4299  
5908 6811 9439

\*SEE ALSO\*--- BELTS -- IMPACT, CABLES AND  
STRINGS -- VIBRATION, CABLES AND STRINGS --  
WAVES, CABLES AND STRINGS

## CALORIMETER

1969 3632 8899

## ADIABATIC

3639

## CAMs

1769 1770 1771 2549 2561 3415 5255 7011 8555 8706

## CANALS

4334 7041 7053 8740

\*SEE ALSO\*--- CHANNELS

## CAPILLARY FLOW

2844 3464 3678 3711 3714 3717 4467 5154 5304 5450  
6546 7923 8223 9973

## CASCADES OF AIRFOILS

482 483 491 1161 6262 7191 8021 9745 9785 9787  
9788

## COMPRESSIBLE FLOW

479 481 1876 1922 4437 7181 8019 9786 9790

## INCOMPRESSIBLE FLOW

480 485 498 1914 2599 2726 3596 3597 4436 5288  
5440 6348 6350 7178 8022 8757 8864 8867

\*SEE ALSO\*--- TURBINES AND TURBOMACHINERY

## CASTING

3317 8660 9512

## CAVITATION

475 1362 1809 2611 3462 3470 4666 4692 5192 6236  
6237 6967 7187 8284 9833 9918

## AIR-WATER ENTRY

2439

## CAVITATION \*CONTINUED\*

## DAMAGE

371 4336 5278 7384 8870 9628

## HYDROFOILS

3507 7189 8026 8269 9785  
FEBRUARY FEATURE ARTICLE

## INDUCERS

4698 7179 8025 8174

## MECHANISM

1071 1803 1804 3468 4337

## PROPELLERS

499 9054 9795

## PUMPS

1161 3469 4452 6356 7179 8025

## TURBINES

2439 2736

\*SEE ALSO\*--- BUBBLE DYNAMICS, CAVITATION FLOW --  
EROSION -- FRETTING -- NOISE, CAVITATION -- WEAR

## CELESTIAL MECHANICS

27 28 861 1322 1323 1324 1554 2084 2995 3093  
6490

SEPTEMBER FEATURE ARTICLE

## GENERAL PERTURBATIONS

1325 1333 2070 7354 9901

## PERIODIC ORBITS

9272

## PLANETARY THEORY

3806 7571

## SATELLITE THEORY

643 644 2083 2085 3807 4631 4632 4635 4636 6493  
6494 7350 9036

## SPECIAL PERTURBATIONS

1326 9837 7573 7574

## THREE BODY THEORY

645 1327 1330 2072 4910 9271

\*SEE ALSO\*--- ARTIFICIAL SATELLITES --  
INTERPLANETARY PROBES -- LUNAR MISSIONS -- ORBIT  
MECHANICS -- RADIATION PRESSURE -- REENTRY --  
RENDEZVOUS

## CENTRIFUGATION

7413 9960

## CERAMICS

1425 3348 3385 4218 6097 6224 6913 8280 9510 9549

## CERMETS

4796 8280 8282 9510

## CHAINS

2555 3251 6187 7755 8704

## CHANNELS

7933

## CLOSED, FLOW

380 2029 2572 2613 4355 7248 7960 8061 8068 8070  
9097

## EROSION

3471 5279

## OPEN, FLOW

469 789 1067 1068 1801 1907 2181 2592 2606 2991  
3450 3451 3452 3456 3457 4322 4324 4325 4328 5276

CHANNELS •CONTINUED•  
OPEN, FLOW •CONTINUED•  
6230 8740 9624

SEDIMENTATION  
1805 3471 3472 5275 7940 9630

•SEE ALSO--- BACKWATER CURVES -- CANALS --  
PIPE FLOW -- STREAMS, NATURAL

# CHEMICAL

ENGINEERING  
360 476

KINETICS  
3777 4566 6479

THERMODYNAMICS  
516

•SEE ALSO--- COMBUSTION -- HEAT TRANSFER --  
THERMODYNAMICS

CHEMICAL REACTIONS  
1844 2808 3063 7208

EXOTHERMIC  
2016

CHIP FORMATION  
263 999 3308 3311

CHUTES AND CONVEYORS  
9599 9960

CLAY  
242 245 247 248 250 981 982 987 995 1798  
3385 4184 4188 4727 5142 5143 5156 5160 6066 6069  
6903 6913 7800 8578 8581

CLOUDS  
2131 4771 7431 7439 9100 9128

•SEE ALSO--- METEOROLOGY, CLOUD PHYSICS

CLUTCHES  
342 343 6190

COANDA EFFECT--- •SEE• JETS, COANDA EFFECT

COASTAL ENGINEERING  
2944 7428

COATINGS  
7448 8638 8661

BIREFRINGENT  
286 2503 2507 3360 3361 4242 8652 8653

PROTECTIVE  
284 1424 3320

SURFACE  
1225 1985 2513 2518 3320 4504 4515 4534 5494 6411  
6417 8076 8085 9833

•SEE ALSO--- LUBRICANTS

CODING AND PROGRAMMING  
27 28 31 764 787 789 790 2206 2207 2208  
2210 2211 2403 2424 2526 2527 2530 3022 3023 3024  
3026 3027 3390 3428 3927 3935 3936 4852 4856 4857  
5777 5778 5779 5784 5787 5794 6639 7473 8329 8682  
8683 9172 9214 9215 9216 9217 9218 9225 9450  
MAY FEATURE ARTICLE

COFFERDAMS  
9626

COLUMNS  
8695

DESIGN  
3391

DYNAMIC LOADING  
2404 9401

REINFORCED CONCRETE  
3395 5228 6980 8691

TESTING  
1035 6986

VARIABLE CROSS SECTION  
181

•SEE ALSO--- BEAMS, BEAM-COLUMNS

COMBINED LOADS  
3395 4264 8663

COMBUSTION  
1962 2001 3721 3735 7270 7305

ACOUSTICS  
1352

BLOWOFF  
3719

BOUNDARY LAYER  
8958

BURNING RATE  
2825 9845 9847

EXTINGUISHING  
1260 3747 5526

FUEL JETS  
2829 8960 8961

GASEOUS FUELS  
1255 1258 2018 3750 8954 8959

HEAT TRANSFER ASPECTS  
3708 5522 6442

IGNITION DELAY  
3723

INFLAMMABILITY  
2007

INSTABILITY  
1257 2011 4651 5551 8956 8957 9842

LIQUID DROPLETS  
3715 3722 8967

LIQUID FUELS  
588 2019 2818 4543 4560 4569 5527 5539

MECHANISMS  
4572 6438 6446

POWDERED FUELS  
2831 6432

PROCESS  
1944 7301

PRODUCTS  
6437 7210

PROPELLANTS  
9844 9845 9846 9847

REACTION KINETICS  
2830 3531 4566 4825 5537 6438 6439 7294 7301 7302

## COMBUSTION \*CONTINUED\*

## SMOKE WAVES

584 1221 3523 3738 8968

## SOLID FUELS

1261 2832 3733 3747 4572 5522 5537 5538 6440 6446  
6447 8956

## STABILITY

4568

## SUPERSONIC

2004 2015 7304

## TEMPERATURE MEASUREMENT

4560 5513 6445 8149

## UNSTEADY

6440

\*SEE ALSO\*--- BOILERS -- BOUNDARY  
LAYER, COMBUSTION -- BURNERS -- CHEMICAL,  
KINETICS -- COMBUSTORS -- CRASH FIRES --  
DETONATION AND DEFLAGRATION -- DISSOCIATION --  
EXPLOSION, HYDRODYNAMICS -- FLAME -- FLUE GASES --  
FURNACES -- IGNITION -- KNOCKING --  
OPTICAL TECHNIQUES -- PROPELLANTS -- ROCKETS --  
SPRAYS

COMBUSTION CHAMBERS--- \*SEE\* ROCKETS, COMBUSTION  
CHAMBERS

## COMBUSTORS

4568 5530 6444 8960 8961

\*SEE ALSO\*--- ROCKETS, COMBUSTION CHAMBERS

## COMPLEX VARIABLES

794 2209 3149 3902 7498 7628 8441 9209

\*SEE ALSO\*--- CONFORMAL MAPPING -- FREE BOUNDARY

## COMPOSITE MATERIALS

141 142 144 279 2315 2499 3137 3331 4045 4056  
4176 4177 4790 4800 4962 5485 5656 5726 5727 5888  
6044 6148 6383 6385 6705 7623 7654 7903 8418 8646  
9328 9561 9590

## REINFORCED

103 891 896 1035 1756 2319 2934 3129 3214 3323  
4230 4243 4776 4817 4948 5900 6122 7621 7627 7649  
7668 8648 9313 9551 9568

\*SEE ALSO\*--- LAMINATES

COMPRESSIBILITY--- \*SEE\* THERMOPHYSICAL PROPERTIES,  
EQUATIONS OF STATE

## COMPRESSIBLE FLOW--- \*SEE\* FLOW, COMPRESSIBLE

## COMPRESSORS

481 2725 5400 6353 6846 9960

## AXIAL

489 490 491 493 1919 1920 1921 5446 7184 7186  
8166

## BLADES

1922 7178 7181 9794

## CENTRIFUGAL

488 1916 2729 2730 4444 5444

## MIXED

6354 8022 9794

\*SEE ALSO\*--- FLOW, INTERNAL --  
TURBINES AND TURBOMACHINERY -- VIBRATION, BLADES

## COMPUTERS--- \*SEE\* COMPUTING TECHNIQUES

## COMPUTING TECHNIQUES

764 1438 2143 4750 5689 5747 6556 7427 9172 9589  
9935 9978 10007

## ANALOG

837 1476 2216 2696 3026 3027 3028 3064 5259 5790  
6587 7020 7521 7591 8356 9226 9603 9859 10006

## DIGITAL

318 319 331 349 1043 1134 1519 2206 2207 2424  
2527 3021 3025 3541 3901 3933 3934 3989 4853 5245  
5782 5783 5788 5789 6180 6183 6976 7015 7021 7473  
7512 7517 7873 7899 8680 9214 9215 9216 9217 9218  
MAY FEATURE ARTICLE

## DIGITAL-ANALOG

2986 3024 3792 6083 7516

\*SEE ALSO\*--- CODING AND PROGRAMMING --  
DATA ANALYSIS -- SIMULATION

## CONCRETE AND MASONRY

5250 6980 6987

## LIGHTWEIGHT

6986

## PIPES

3396 3399 6997

## PRECAST

6212 7903

## PROPERTIES

322 880 1037 1751 2475 2536 2578 3134 3144 3322  
3345 3398 4041 4973 5229 6097 6122 6144 6175 6744  
6970 6991 7223 7637 7886 8616 9571

## SLABS

2524 5230 5246 6161 7883 7903 9570

## STRUCTURES

2532 2539 3221 5228 6174 6996 7887 9586

## TESTING

307 1022 1030 2519 2520 2525 2535 2537 2740 3374  
3377 3378 3379 3380 3397 3404 4262 5227 6127 6140  
6146 6959 6968 6981 6988 6990 7884 8666 9557

## WALLS

2531 3408 4294 7900 7904

\*SEE ALSO\*--- BEAMS, REINFORCED CONCRETE -- CREEP,  
CONCRETE -- JOINTS AND JOINING PROCESSES --  
PRESTRESSED CONCRETE -- WALLS

## CONDENSATION

1846 3708 5468 6275 7272 7273 7274 8088 8935 8936  
8937

## HIGH SPEED FLOW

5356 7988 8096

\*SEE ALSO\*--- HEAT TRANSFER, CONDENSATION

## CONFORMAL MAPPING

2187 4968 5285 6623 7488 7945 8531 9187

\*SEE ALSO\*--- FREE BOUNDARY

CONSOLIDATION AND STABILIZATION OF SOILS--- \*SEE\*  
SOIL MECHANICS, CONSOLIDATION

## CONTACT PROBLEMS

100 135 684 876 911 1384 1585 2168 2300 2314  
2320 2327 2332 2514 2547 2552 3123 3124 3125 3141  
3873 4021 4032 4036 4218 4953 4970 5227 5765 5872  
5889 5892 5893 5916 6134 6377 6702 6721 6722 6874  
6962 7448 7616 7617 7618 7619 7631 7645 7670 8283  
8296 8403 8412 8413 8414 8429 9146 9310 9312



## CONTINUUM MECHANICS

873 965 1451 1611 2179 2289 3092 3434 3868 4007  
4037 4310 4678 4820 4839 4920 5126 5263 6044 6602  
6724 6725 6747 6879 6894 7642 7780 8420 8433 9155  
9164 9463

## CONSTITUTIVE EQUATIONS

352 2328 3142 4960 5128 5885 6727 7024 8301 8571  
8573 8574 9465

\*SEE ALSO--- ELASTICITY -- PLASTICITY --  
RHEOLOGY -- VISCOELASTICITY

## CONTROL STABILITY

41 54 1491 1530 2220 2233 2239 2271 2273 3048  
3801 3951 5804 5808 5810 7482 7536 8829 9239

## DISCRETE SYSTEMS

3036 3053 3054 5806 8347 9278

## FORCED SYSTEMS

3945 5797 9237

## LINEAR SYSTEMS

2231 2265 3043 3046 3954 6644 6654 6663 8324

## NONLINEAR SYSTEMS

39 803 1493 2230 2232 2234 3041 3043 3044 3045  
3047 3053 3945 3946 3947 3948 4865 4868 5800 5807  
6661 6675 8343 8345 8350 8352

## TIME DELAY SYSTEMS

3034 3317 3949 4866 6649 7538 8351

## TIME VARYING SYSTEMS

803 1481 2229 2230 3034 3036 3950 5805 6644 6649  
7539 8347 8349

CONVECTION--- \*SEE\* HEAT TRANSFER, CONVECTION

CONVEYORS--- \*SEE\* CHUTES AND CONVEYORS

## COOLING TOWER

5943

## COPPER

120 1422 1425 2460 2461 3151 3305 3868 3873 4982  
5716 5719 6117 6152 8667 9333 9512 9522

## CORROSION

1426 1597 2165 2493 7839 8281 9526

\*SEE ALSO--- COATINGS, SURFACE -- FATIGUE,  
CORROSION -- STRESS CORROSION

COUETTE FLOW--- \*SEE\* FLOW, INCOMPRESSIBLE,  
COUETTE

## COUPLINGS

7012 8725

## CRACK PROPAGATION

272 273 277 280 281 1017 1725 1726 1730 1733  
2473 2475 2478 2479 2480 2485 3329 3330 3334 3336  
3343 3348 3349 3350 3356 3398 4218 4221 4236 5133  
5183 5184 5185 5186 5202 6036 6097 6102 6110 6113  
6130 6173 6927 6928 6933 6946 7828 7831 7832 7833  
7835 8622 8623 8625 8626 8627 8629 8630 8634 8637  
8638 8639 9103 9514 9515 9517 9518 9521

## EXTENSION

3149 3397 4051 4162 4262 4264 4802 4983 6885

## FRACTURE MECHANICS

1000 1002 1005 1006 1013 1721 1722 1723 1724 2474  
2477 3327 3328 3332 3335 4056 4219 4220 4224 4225  
5195 6096 6098 6099 6100 6101 6926 6929 6930 6931  
6932 6934 6937 6941 7827 7834 8615 8616 8617 8618  
8619 8620 8621 8624 8628 8632 9513 9516 9522 9545

## INITIATION

116 4036 4963 9304

## CRACK PROPAGATION \*CONTINUED\*

## RESISTANCE

7798 8441

\*SEE ALSO--- FATIGUE -- STRESS AND STRAIN,  
CONCENTRATION

## CRASH FIRES

2481

## CREEP

1055 1595 5221 8677

## COMPOSITE MATERIALS

109 110 4962 5888 6734 6735 7641

## CONCRETE

880 2321 3134 4041 4954 7637 8425

## METALS

877 1597 1598 1599 2341 2476 3132 3384 4040 4042  
4043 4952 4955 4956 4958 5884 6152 6544 6728 6729  
8642 9321 9325

## NONMETALS

109 110 242 245 875 878 879 881 3135 3139  
4959 4961 4962 5888 6730 6731 6733 6734 6735 7629  
9323

## RUPTURE

4227 4228 4229 4957 5182 6728 6734 7857 8631 9514  
9519

## TESTING

112 113 874 1597 2321 2517 3133 3139 4038 4952  
4955 6729 6731 7637 7640 8669

## THEORY

107 875 876 1596 1597 2322 2323 2324 3132 3133  
4040 4042 4275 4953 4954 4957 5883 5884 6728 8425  
9323

\*SEE ALSO--- BEAMS, CREEP -- BUCKLING, CREEP --  
FRACTURE, CREEP -- HIGH TEMPERATURE PROPERTIES OF  
MATERIALS -- PLATES, CREEP -- SHELLS, CREEP --  
STRESS AND STRAIN, RELAXATION -- STRUCTURES,  
CREEP -- SUPERPLASTICS -- VISCOELASTICITY

## CRITICAL SPEED

204

\*SEE ALSO--- SHAFTS, CRITICAL SPEED

## CRUSHING

4723 4960 7823 7824 9960

## CRYOGENICS

1199 4508 4726

\*SEE ALSO--- HEAT TRANSFER, CRYOGENICS

## CRYSTALS

1896 2340 2444 3146 3260 4056 4166 4251 5169 6526  
6745 6880 7650 7780 8575

## METALS

120 1003 2162 2345 3150 3868 4052 4977 4981 5904  
6117 6749 8436 8439 8444 9522

## NONMETALS

210 232 239 240 947 2579 4051 9443

\*SEE ALSO--- DISLOCATION THEORY, CRYSTALS

## CULVERTS

1719 3277

## CURRENTS

## WATER

1398 4758 5686 6560 6564 8245

CURVE FITTING  
2514 5795

CUSHIONING MATERIALS  
3429 4307 5112 9448 9452

CUTOUPS IN STRUCTURES--- \*SEE\* STRUCTURES, CUTOUPS

CUTTING PROCESSES  
1427 5175 8288

METALS  
263 999 2467 2468 2469 3310 3313 5178 9504 9509

NONMETALS  
3311 7822

THEORY  
2468 3308 3312 9509

\*SEE ALSO\*--- CHIP FORMATION -- DRILLING --  
GRINDING -- MILLING -- SHAPING -- TURNING

CYBERNETICS  
790 1470 3009 3067 3898 5789 7567

\*SEE ALSO\*--- LEARNING SYSTEMS

CYCLONES  
388 691 692 6319 9960

\*SEE ALSO\*--- MICROMERITICS

# D

DAMPING CAPACITY OF MATERIALS  
210 2423 4150 4180 5095 5100 5101 6820 6865 7374  
7653

\*SEE ALSO\*--- CUSHIONING MATERIALS

DAMS  
298 2456 2511 3587

ARCH  
4277 5245 7812 7872

EARTH  
2451 2452 7790 7819 8225 8745 9970

DATA ANALYSIS  
21 33 709 764 1500 2155 3021 3922 3936 6374  
6563 6945 8242 8702 9113 9115 9170 9247 9588

AUGUST FEATURE ARTICLE

PROCESSING  
825 4853 7473 8307 9984 10007

RECORDING  
1390 8233

REDUCTION  
7907

\*SEE ALSO\*--- AUTOMATIC CONTROL, DISCRETE  
SYSTEMS -- NUMERICAL ANALYSIS

DATA PROCESSING AND REDUCTION  
874 1595 2973 6308 7518 7519 7840 7930

MAY FEATURE ARTICLE

DEFLAGRATION--- \*SEE\* DETONATION AND DEFLAGRATION

DEFORMATION--- \*SEE\* STRESS AND STRAIN

DELAY SYSTEMS--- \*SEE\* TIME DELAY SYSTEMS

DETONATION AND DEFLAGRATION  
581 584 2099 2832 2900 2901 2907 3726 3727 4561  
4564 4649 4651 4653 4670 5620 6363 7291 7295 7362  
9045 9914

\*SEE ALSO\*--- EXPLOSION

DIAPHRAGMS  
17 8434

DIFFERENCE-DIFFERENTIAL EQUATIONS  
171 8725 9183

\*SEE ALSO\*--- EQUATIONS, FUNCTIONAL

DIFFERENCE EQUATIONS  
1 1113 1484 3302 4852 4854 5766 6621 9163 9183

\*SEE ALSO\*--- EQUATIONS, FUNCTIONAL

DIFFERENTIAL ANALYZER--- \*SEE\* COMPUTING TECHNIQUES

DIFFERENTIAL EQUATIONS, ORDINARY  
1 3 12 47 59 442 772 1463 2180 3915  
4402 4852 4862 5768 6607

APPROXIMATION METHODS  
5 6 25 770 782 1455 1872 2651 2995 3019  
3911 3912 4821 4826 5382 5759 6608 6609 7477 7479  
7480 7481 7482 7486 7487 7510 8310 8313 8314 8315  
8316 9175 9177

BOUNDARY-VALUE PROBLEMS  
1456 2185 3907 4851 5754 6603 6630 7485 7489 7493  
8312 8318 8322

EIGENVALUE PROBLEMS  
768 4847 6602 6603 7479 7481 7483 8327

INITIAL-VALUE PROBLEMS  
1454 4825 4831 5755 5763 6619 7024 7493 8020 8314  
8315 8316

NONLINEAR  
9 11 1455 1457 1475 1663 2190 2997 2998 3220  
3224 3225 3905 3908 3909 3910 3912 3914 3931 3932  
4821 4836 4843 4847 5751 5752 5753 5756 5757 5758  
5777 6194 6603 6605 6606 6611 6613 6630 6805 7208  
7484 7491 8312 8313 8318 8528 8529 9177 9179

NUMERICAL METHODS  
10 2205 3913 3927 3933 4851 5766 5781 6603 7148  
7510 7511 7515 8317 8805 9163 9176 9179 9220 9723

OPERATIONAL METHODS  
3007 4841 7499

STABILITY  
8 769 771 1452 1466 1492 2181 2996 3005 3222  
3923 6086 6087 7482 8020 9178 9183

\*SEE ALSO\*--- BOUNDARY-VALUE PROBLEMS -- EIGENVALUE  
PROBLEMS -- EQUATIONS, FUNCTIONAL -- INITIAL-VALUE  
PROBLEMS -- MATRIX METHODS -- NUMERICAL  
ANALYSIS -- OPERATIONAL METHODS

DIFFERENTIAL EQUATIONS, PARTIAL  
3 15 765 2183 2659 3003 3552 4400 4403 4762  
4852 5378 6614 7128 8812

APPROXIMATION METHODS  
13 14 29 438 780 1123 1861 1865 2658 2998  
3028 3553 4405 4406 4410 5373 5377 5379 5761 6602  
7126 7477 7508 8006 8310 8795 9186 9195 9709

BOUNDARY-VALUE PROBLEMS  
7 26 30 773 778 1458 1459 1460 1464 1468  
3000 3001 3014 3916 4827 4828 4829 4832 4835 5181  
5762 5780 5792 6610 6612 6615 6616 6624 6632 7127  
7489 7490 7493 7505 7575 8310 8321 9000 9193

## DIFFERENTIAL EQUATIONS, PARTIAL \*CONTINUED\*

## EIGENVALUE PROBLEMS

774 775 3499 4740 4837 4849 6602 6624 7575 9180

## INITIAL-VALUE PROBLEMS

5760 6467 6612 6615 7493

## NONLINEAR

13 30 80 774 1460 1464 2182 2186 2202 2709  
3002 3575 3576 3905 3917 6602 7492 7508 8320 8321  
8332

## NUMERICAL METHODS

26 438 1122 1464 1868 1869 2200 2650 3541 3933  
4047 4415 5393 5762 5766 5780 6287 6295 6302 6637  
7136 7492 7501 7508 7993 8320 8796 8797 8803 8806  
9181 9184 9193 9219

## OPERATIONAL METHODS

2199 3004 3006 3007 3008 5790 7498 7499 9197

## STABILITY

776 1452 2709 2996 3005 5296 5319

\*SEE ALSO\*--- DIFFERENTIAL EQUATIONS, ORDINARY --  
EQUATIONS, FUNCTIONAL

## DIFFRACTION--- \*SEE\* INTERFACE PHENOMENA

## DIFFUSERS

1863 5357

## SUBSONIC

1172 4344 7074

## SUPERSONIC

1853 3565

\*SEE ALSO\*--- INLETS

## DIFFUSION

62 65 1959 2970 2987 3823 4055 4403 4738 4844  
6249 6551 6603 8033 9645 9801 9965

## ATMOSPHERIC

3494 4768 6568 6570 8251 9134

## MOLECULAR

355 387 890 1820 3146 3892 6602 7468

## THERMAL

3151 8033

\*SEE ALSO\*--- THERMOPHYSICAL PROPERTIES --  
TURBULENCE, DIFFUSIONDIGITAL COMPUTERS--- \*SEE\* COMPUTING TECHNIQUES,  
DIGITAL

## DIMENSIONAL ANALYSIS

375 2144 2659 3618 5266 6343 6555 6558 6639 8310  
9960\*SEE ALSO\*--- MARINE ENGINEERING, SHIP MODEL  
EXPERIMENTS -- SCALE EFFECTDIRECT ENERGY CONVERSION---\*SEE\* ENERGY CONVERSION,  
DIRECT

## DISKS

117 915 2388 3115 3191 3818 4016 4145 4146 4969  
4970 5030 5639 6827 6830 7763 7764 9514

\*SEE ALSO\*--- ROTATING DISKS

## DISLOCATION THEORY

4055 5169 5902 5905 5906 6745 6747 7657 8445

## CONTINUOUS DISTRIBUTIONS

889 1597 1610 2344 3148 3149 4052 4978 4980 5883  
5897 5907 6746 6748 8442 8447 9335

## DISLOCATION THEORY \*CONTINUED\*

## CRYSTALS

890 892 2343 2345 3136 3150 3152 3153 4043 5907  
8436 8439 8440 8446 9335

## EDGE

3147 3152 6748 8440 8443 8448

## SCREW

1610 3147 3150 4980 6748 8440 8441 8448

\*SEE ALSO\*--- CREEP -- CRYSTALS -- PLASTICITY,  
PHYSICAL THEORY

## DISPERSION

355 391 554 1799 1800 1822 1980 1981 1982 2133  
3494 3655 3828 4326 4746 5476 5690 6223 6420 6553  
7030 8075 8090 8104 9631 9832 9960

## DISSOCIATION

6273

## DISTILLATION

64 2803 4557

## DOCKS

8832

## DOPPLER EFFECT

7058

SEPTEMBER FEATURE ARTICLE

\*SEE ALSO\*--- WAVES, DOPPLER EFFECT

DOWNWASH AND UPWASH---\*SEE\* WINGS, UPWASH AND  
DOWNWASH

## DRAG AND LIFT

1813 3460 3560 6232 7050 7936 8014 8015

## COMPRESSIBLE FLOW

1878 1883 2693 2699 2700 3568 5415 5417 6315 6317  
6322 7161 8017 8815 8818 9757 9758 9759 9760

## INCOMPRESSIBLE FLOW

1080 1082 1085 1137 2574 2607 3496 3498 3567 4335  
5265 5293 5308 6216 6257 7060 7075 7076 7947 9638  
9653

## MEASUREMENTS

1143 1880 1887 2689 4453 6323 8036 9143

## VEHICLES

5420 5422

\*SEE ALSO\*--- BODIES, FLOW PAST, WITH MODIFIERS --  
BOUNDARY LAYER -- HIGH LIFT DEVICES -- MARINE  
ENGINEERING, SHIP RESISTANCE

## DRAWING

257 261 1598 2462 3306 4214 5714 6080 6088 6089  
6090 6911 6920 6924 7453 9508\*SEE ALSO\*--- EXTRUDING -- FORGING -- FORMING --  
ROLLING -- SUPERPLASTICS

## DRILLING

264 265 992 1669 1703 2466 6025 6078 6833 6910  
8606

\*SEE ALSO\*--- WELLS

## DROPS

386 390 696 699 1088 1381 1810 2131 2135 2597  
2612 2975 3589 3821 3829 3830 4361 4721 5300 5662  
5663 6571 7409 7410 7411 8195 8210 8212 8750 9095  
9765 9989

\*SEE ALSO\*--- HYDROLOGY, RAINFALL -- SPRAYS

DRYING  
569 2810 3692 3711 3716 3717 5519 5521 6554 8094  
8095 8231 8930 9839

DUCTILITY  
282 1602 5187 6736

\*SEE ALSO--- FRACTURE, DUCTILE -- STRAIN  
HARDENING -- SUPERPLASTICS

DUST  
1818 2953 2954 3278 4725 4732 5399 5521 8095 8208  
8216 9962

COLLECTION  
3834 4734 6701

PARTICLE SIZE DETERMINATION  
2952 7417 7418

TRANSPORT  
4357 9093

DYNAMIC LOADING--- \*SEE\* UNDER MODIFIER

DYNAMIC PROGRAMMING  
61 196 823 842 1469 2193 2258 2267 3901 3926  
4908 5811 5827 6629 6639 6683 6684 7562

\*SEE ALSO--- OPTIMAL AUTOMATIC CONTROL

DYNAMICS  
70 71 73 523 857 858 859 860 861 1452  
1555 1558 1564 1565 1766 2278 2279 2286 3088 3092  
3093 3094 3096 3099 3102 3106 3328 3903 4001 4002  
4010 4011 5134 5985 6318 6692 6694 6695 7511 7569  
8020 8386 8387 8704 8721 9159 9268 9269

ELASTIC BODIES  
296 330 779 1562 1680 3251 3888 4914 5986 6849  
6879 7491 7576 8445 8446 9417 9418 9436

PARTICLE  
69 690 1556 1557 1559 1563 1818 2283 2890 3095  
4006 4910 5751 5837 5844 6491 7572 7574 7581 7587  
9270 9275 9276

RIGID BODIES  
77 78 79 217 862 1339 1560 1561 2082 2186  
2195 2216 2283 2286 4634 4831 4914 5085 5839 5840  
5842 6498 6501 6605 6693 7570 7577 7580 7584 7586  
9035 9277 9278 9407

STRUCTURES  
206 209 327 328 329 3245 3402 3888 4137 4140  
4171 4291 4292 4293 4860 5125 5174 5249 6017 6019  
6971 6981 6993 6994 7005 7006 7007 7578 7899 9435  
9581 9593 9608

TESTING  
1140 2896 3267 3372 3413 3414 3888 6124 6147 6591  
8647

\*SEE ALSO--- AIRPLANE, DYNAMIC LOADS --  
BIODYNAMICS -- IMPACT -- IMPULSE -- SOIL  
MECHANICS, DYNAMICS -- SPACE VEHICLE  
STABILIZATION -- STRUCTURES, DESIGN, EARTHQUAKE  
RESISTANT -- STRUCTURES, EARTHQUAKE EFFECTS --  
VARIATIONAL METHODS, SOLID MECHANICS -- VIBRATION

## E

EARTH PRESSURE--- \*SEE\* SOIL MECHANICS,  
EARTH PRESSURE

EARTHQUAKES--- \*SEE\* SEISMOLOGY, EARTHQUAKES

EFFUSION  
7125 8793

EIGENVALUE PROBLEMS  
933 939 1659 2398 2411 2429 3242 3244 3260 3929  
4120 4138 4152 4818 4830 5081 5691 5698 6009 6633  
6794 7500 7575 7755 8160 8161 8531 8535 9403 9432

\*SEE ALSO--- BOUNDARY-VALUE PROBLEMS

EJECTORS  
419 420 421 1822 2603 4380 4445 5739 7052 8783  
9999

ELASTIC CONSTANTS OF MATERIALS  
4030 4150 4949 4978 5078 5650 5651 5900 6813 6840  
7620 7644 7785 7791 7897 8943 8971 8973 9071 9326  
9426 9473 9933

TEST TECHNIQUES  
686 6969 7856 8409 8660 8668 9544 9550 9551 9553

ELASTIC FOUNDATIONS  
5876 6013 7866

BEAMS  
3161 4061 6754 6779 7663 7694

PLATES  
901 1625 4072 5004 5005 5953 7693 7695 9351

SHELLS  
7728

STRUCTURES  
942 6013 6016

ELASTIC WAVES--- \*SEE\* WAVES, ELASTIC

ELASTICITY  
81 865 866 1451 1578 2188 2307 3264 3329 4017  
4027 4162 4218 4221 4280 4941 5764 6126 6709 6989  
7595 7609 8406 8430 8699 9288 9291

ANISOTROPIC  
97 102 1574 1589 1590 1591 1592 1747 2303 2317  
3117 3127 3128 3130 4925 4935 4938 4939 4944 5848  
5857 5866 5875 7592 7625 8395 8416 9317

CONSTITUTIVE EQUATIONS  
867 1371 2292 2340 5845 5846 6700 7591 8408 8571  
8574 9301

COUPLE STRESSES  
96 1575 1576 1577 2308 2309 2318 3112 4935 4936  
5636 5861 6711 6712 6713 6714 9300 9383

FINITE STRAINS  
88 91 1567 2179 2291 2295 4922 4923 4928 4942  
4995 5036 5867 7593 8392 9283

GENERAL THEORY  
864 872 910 955 1372 1568 1572 1573 1582 1587  
2290 2294 2301 2302 2304 2308 2306 2316 2318 3111  
4015 4020 4933 4934 4943 5773 5845 5851 5863 6713  
7589 7596 7597 7601 7602 7603 8402 8405 9293 9295  
9299 9302 9315 9342

MECHANICS OF MATERIALS  
5646 5847 5848 5859 5862 5869 5870 5873 7590 8398

NONHOMOGENEOUS  
84 4024 4924 4947 4950 5866 6699 6711 6715 7606  
8401 9298 9304 9305 9306 9311 9314 9316 9318 9319

THREE-DIMENSIONAL, LINEAR  
92 863 1459 2217 2297 2298 2312 3110 4029 4168  
5759 5765 5858 6532 6602 6723 7600 7654 8323 8327  
8399 8400 8404 9181 9207 9212 9214 9215 9216 9217  
9218 9294 9296 9297

## ELASTICITY \*CONTINUED\*

THREE-DIMENSIONAL, NONLINEAR  
929 1464 8393

## TWO-DIMENSIONAL, LINEAR

82	83	85	86	87	89	90	93	94	95
98	104	127	1369	1570	1579	1581	2293	2294	2299
2311	3107	3108	3114	3116	3118	4018	4022	4023	4033
4034	4168	4855	4926	4927	4931	4940	5037	5849	5850
5853	5854	5855	5856	5868	5920	6623	6703	6704	6706
6707	6708	6709	6710	7598	7604	7607	7772	8394	8396
8397	8407	8410	9289	9290	9292				

TWO-DIMENSIONAL, NONLINEAR  
2296 4025 5910 7594

\*SEE ALSO\*--- ANISOTROPIC MEDIA -- BEAMS --  
COMBINED LOADS -- CONTACT PROBLEMS -- CONTINUUM  
MECHANICS, CONSTITUTIVE EQUATIONS -- DISLOCATION  
THEORY -- ENERGY METHODS -- INTERFERENCE FITS --  
PLATES -- SMELLS -- STRESS AND STRAIN --  
STRUCTURES -- THERMOELASTICITY -- TORSION --  
VARIATIONAL METHODS, ELASTICITY

## ELASTOMERS

110 1421 3381 4081 4962 5888 6734 8627

## ELASTOPLASTICITY

1606	2328	2330	2337	3142	3144	3269	3302	4047	4048
4049	4965	4968	5214	5890	5891	5900	5901	6102	6133
6163	6164	6176	6740	6962	6971	7508	7646	7651	7653
7654	7846	8431	8629	8645	8676	8677	8685	8686	9330
9332	9503	9518	9952						

ELECTRICAL ANALOGIES--- \*SEE\* ANALOGIES,  
ELECTRICALELECTRICAL AND ELECTRONIC PROPERTIES  
6228 9989GASES  
7210LIQUIDS  
2325 2842SOLIDS  
2763 3313 3318 6919 6921 8038

## ELECTRO-FLUID-DYNAMICS

599 701 2095 2840 2844 3092 3785 4730 4731 5430  
5562 7096 7412 9022

## ELECTRON

BEAMS  
1933 2747 5180 9719ELECTRONIC INSTRUMENTATION--- \*SEE\* INSTRUMENT  
ENGINEERING, ELECTRONIC

EMBANKMENTS--- \*SEE\* DAMS

EMISSION--- \*SEE\* THERMOPHYSICAL PROPERTIES,  
RADIATIVEENCYCLOPEDIA  
4478 8237ENERGY CONVERSION  
1184 1942DIRECT  
3632 5277 5556ELECTRO-GAS-DYNAMIC  
3785 3796 4612 5562FUEL CELL  
518 520 1185 2033 2752 3633 3634 4488 5457 5458

## ENERGY CONVERSION \*CONTINUED\*

## MHD GENERATOR

601	613	631	632	1269	1291	1306	1307	1308	2028
2058	2059	2847	2871	2872	2873	2874	2882	3756	3791
3792	3793	3794	3795	3797	4596	4603	4613	5561	5565
5593	5594	5595	6477	6478	7320	7333	8148	8150	8156
8157	8986	8994	9016	9017	9018	9742	9883	9886	9887

SOLAR CELL  
519THERMIONIC  
1186 3635 3771 4611

## ENERGY METHODS

191 888 1555 1564 2326 3264 3889 4049 4975 5171  
5890 6079 6080 6825 6830 7826 9893

## ENGINES

591 1263 1352 1780 2022 4483 5546 8552 8969

## DIESEL

590 592 734 1960 2914 3432 3739 3743 4239 5111  
5473 6449 6585 7456 8112 8972EXTERNAL COMBUSTION  
8971FREE PISTON  
3744

## SPARK IGNITION

589 1262 2819 2820 3742 4565 5111 5542 5543 5544  
5545 6431 9993

\*SEE ALSO\*--- JET ENGINES -- LUBRICATION --  
NOISE, ENGINES -- PERFORMANCE, ENGINES --  
SOLAR, ENGINE -- VIBRATION, ENGINES

ENTROPY--- \*SEE\* THERMODYNAMICS, ENTROPY

## EQUATIONS

## ALGEBRAIC

40 1452 1475 1482 2204 3931 4254 6603 6630 6976  
7483 9174 9196  
OCTOBER FEATURE ARTICLEFUNCTIONAL  
4818 5768

\*SEE ALSO\*--- DIFFERENCE EQUATIONS --  
DIFFERENCE-DIFFERENTIAL EQUATIONS -- INTEGRAL  
EQUATIONS -- INTEGRO-DIFFERENTIAL EQUATIONS --  
NUMERICAL ANALYSIS

EQUATIONS OF STATE--- \*SEE\* THERMOPHYSICAL  
PROPERTIES, EQUATIONS OF STATE

## EROSION

2439 4366 4575 5192 5400 6121 9499

\*SEE ALSO\*--- CHANNELS, EROSION

## ERROR

288 1335 1476 3930 3932 4852 4856 5100

## THEORY

1329 2993 4918 7349 7871 9201 9990

RANDOM  
AUGUST FEATURE ARTICLEEVAPORATION--- \*SEE\* MASS TRANSFER, EVAPORATION --  
METEOROLOGY, EVAPORATIONEXOTHERMIC REACTION--- \*SEE\* CHEMICAL REACTIONS,  
EXOTHERMIC



# EXPERIMENTAL MECHANICS

1742 3359 5134 6844 7853

## DYNAMICS

238 285 1669 3268 4154 4183

## FLUIDS

1875 8247

## STRESS ANALYSIS

238 286 287 288 290 296 1024 1669 1745 2071  
2499 2960 3267 3354 3358 3360 4241 4242 4243 5206  
5211 5694 6133 6959 6960 6961 6962 7841 7842 7843  
7844 7845 7846 7847 7849 8233 8236 8308 8647 8648  
8649 8651 8652 8653 8654 8655 8656 8658 9530 9531  
9535 9538 9541 9594

## TECHNIQUES

271 291 294 298 299 300 302 944 1019 1690  
1692 1740 1741 1743 1744 1771 2422 2425 2426 2500  
2501 2508 2511 3255 3256 3257 3275 3355 3356 3357  
3362 3364 3365 3405 4156 4157 4244 5113 5135 5193  
5196 5197 5199 5201 5202 5203 5204 5205 5207 5212  
5213 5998 6132 6134 6964 6972 7779 7850 7851 7852  
8574 8629 8645 8650 8657 9460 9529 9532 9534 9537  
9542 9543 9545 9546 9547 9931

\*SEE ALSO\*--- COATINGS -- HOLOGRAPHY -- OPTICAL  
TECHNIQUES -- PHOTOELASTICITY --  
PHOTOPLASTICITY -- STRESS AND STRAIN, ANALYSIS

## EXPERIMENTAL STRESS ANALYSIS--- \*SEE\* EXPERIMENTAL MECHANICS, STRESS ANALYSIS

## EXPLODING WIRES--- \*SEE\* WIRES, EXPLODING

## EXPLOSION

2092 2096 2902 2906 4655 7292 7298 7365 8211 8951  
9831

## EFFECTS ON MATERIALS

1000 2098 3285 6907 7826 9477

## EFFECTS ON STRUCTURES

285 1934 2472 6011 6033 6034 6051 6092 6897 6971  
7826 9433 9477 9843  
JANUARY FEATURE ARTICLE

## HYDRODYNAMICS

1154 2904 5628 7059

## MEASUREMENTS

585 656 2833 3731 4571 5630

\*SEE ALSO\*--- DETONATION AND DEFLAGRATION

## EXPLOSIVE FORMING--- \*SEE\* FORMING, EXPLOSIVE

## EXPLOSIVES

2093 2094 2908 4654 5629 6993 7361 7363

## SENSITIVITY TO SHOCK

2091

## EXTERNAL FLOW--- \*SEE\* BODIES, FLOW PAST, WITH MODIFIERS

## EXTRUDING

257 259 2459 2462 3305 3306 5171 6080 6081 6082  
6913 6914 9505 9540

\*SEE ALSO\*--- DRAWING -- FORMING -- FORGING --  
ROLLING -- SUPERPLASTICS

# F

## FABRIC MECHANICS--- \*SEE\* TEXTILES

## FAIL-SAFE DESIGN

1011 4247

## FANS

6355

## AXIAL

2733 3603

## CENTRIFUGAL

480 2728 8869

## FASTENERS

2490 7914

\*SEE ALSO\*--- FATIGUE, FASTENERS -- JOINTS AND  
JOINING PROCESSES

## FATIGUE

1008 1730 1737 2498 4778 6096 6577 6945 6956 6957  
7448 7450 9996

## ACOUSTIC

4701 4702

## BEAMS

270 1757 3351 8689

## BEARINGS

745 2172 2489 4237 4794 4795 4796 9991

## CORROSION

2493 3346 3347 5720

## CRACK DETECTION

1014 2496 3343 3432

## DAMAGE

2487 4299 6116 6953 6955 7833 8644

## EXPERIMENTAL METHODS

9167

## FASTENERS

2490

## FRETTING

278 4231 7837

## GEARS

3419 7016 8706

## JOINTS

7912 7913

## LOW CYCLE

279 1027 1732 2482 2484 6115 6116 6946 6948 8635  
8642

## MACHINE ELEMENTS

3341 4235

## MACHINES

1748 1749 2515 3352

## PLATES

280 2405

## PROBABILITY OF FAILURE

3342

## PROPERTIES OF METALS

272 273 274 275 281 282 283 1015 2341 2345  
2485 3337 3340 3344 4234 5188 6111 6112 6113 6114  
6117 6120 6943 6950 6954 6958 8636 8638

## FATIGUE \*CONTINUED\*

PROPERTIES OF NONMETALS  
3345 6119 6951 7836 8627 8664 9167

RANDOM LOADING  
1011 1016 1757 4246 5109

SHELLS  
4281 5109

STRUCTURES  
1013 4242 5193 6108 6109 6147 6944 9581

TESTING  
1010 1012 1024 2483 2486 2491 2492 2497 3339 3370  
3371 4232 4233 5190 5191 5194 6947 6952 8633 8637  
8641 9524 9547 9548

THEORIES  
276 1009 1731 1735 1736 2488 3338 6949 7835 7838  
8634 8639 8640 8643 9523 9525

THERMAL  
685 2942 5189 7398 7399

\*SEE ALSO\*--- CRACK PROPAGATION -- CREEP --  
FRETTING -- GEARS, FATIGUE AND WEAR -- PROBABILITY  
THEORY -- TURBINES AND TURBOMACHINERY, FATIGUE

FIBERS AND FABRICS  
110 305 306 746 1025 2482 3126 3323 3324 3331  
4056 4058 4230 5645 6150 7599 8415 8450 8630 9502

FILAMENTS  
284 6999 7795 9274 9568

\*SEE ALSO\*--- WHISKERS

FILM COOLING--- \*SEE\* LIQUID FILM, COOLING --  
MASS TRANSFER, SWEAT COOLING

FILTERS  
1080 2947 2948 3827 3832 8555 9960

FINISHING  
3309

\*SEE ALSO\*--- POLISHING

FINITE ELEMENT METHODS--- \*SEE\* STRUCTURES, FINITE  
ELEMENT METHODS

FIRE  
5493 5498 7234 8908

STRUCTURES  
8063

\*SEE ALSO\*--- CRASH FIRES

FLAME  
1962 1993 2008 2824 8955

COOL  
2821

DIFFUSION  
579 2009 2827 3725 3728 3729 4559 7299

LAMINAR  
3736

MIXING  
3725

OSCILLATION  
3728 3729 3750 7300

PLASMA  
7321 9020

## FLAME \*CONTINUED\*

PROPAGATION  
2010 2709 5529

STABILITY  
5509 6435 6436 7299

STABILIZATION  
580 2822 2823 5530 6434

STRUCTURE  
2010 7294

TURBULENT  
3724 4562 4567

VELOCITY MEASUREMENT  
582

VIBRATION  
2827

\*SEE ALSO\*--- COMBUSTION

FLAME HOLDER  
1256 1830 3737

STABILITY  
580 1255

FLAMMABILITY--- \*SEE\* COMBUSTION, INFLAMMABILITY

FLIGHT  
5748 8020 8817

SIMULATION  
788

UNSTEADY  
6318

\*SEE ALSO\*--- PERFORMANCE, FLIGHT

FLIGHT TESTING  
453 464 1124 1139 1140 2672 2765 2836 4475 4477  
6326 8830 9754

AIRPLANES  
2698 4454 5425 9761

FLIGHT TEST INSTRUMENTS  
7202

MISSILES  
4469 8323

\*SEE ALSO\*--- INSTRUMENT ENGINEERING

FLOCCULATION  
9099

FLOODS--- \*SEE\* STREAMS, NATURAL

FLOW, COMPRESSIBLE  
428 514 515 1451 1826 1978 2620 4387 5343 5791  
6261 6264 6265 6270 6394 8772 8773 8774 9617 9660  
9665

CIRCULATION  
6319

CRITICAL  
5420

EQUATIONS  
3515 3517 3521 4663 8320 9881

HYPERSONIC  
573 575 1105 1106 1108 1109 1887 2626 2627 2802  
3516 3518 3687 4370 4471 5328 5330 5331 5364 6273  
6402 7101 7102 7103 7283 7340 7976 7977 7978 7979

## FLOW, COMPRESSIBLE \*CONTINUED\*

## HYPERSONIC \*CONTINUED\*

7980 8778 8781 9671

## HYPERSONIC, AXISYMMETRIC

405 1834 2702 2706 5329 5332 5360 5392 9670

## HYPERSONIC, ONE-DIMENSIONAL

2704 9617

## HYPERSONIC, TWO-DIMENSIONAL

406 2704 3564 5336 5419 6317 6602 7118 7192

## MAGNETO-FLUID-DYNAMIC

595 597 629 1267 1270 1293 4582 4584 4585 5586

## NON-NEWTONIAN

362 363 5398

## STABILITY

661 1117 1277 2719 3513 4369 5576 8758

## STRATIFIED

4765

## SUBSONIC

1221 4371 4372 6262 6263 7088 7964 7965

## SUPERSONIC

401 403 1829 3522 3698 5523 6269 6283 6313 6349  
7098 7099 7100 7116 7250 7971 7973 7974 7975 8777  
9826 9829

## SUPERSONIC, AXISYMMETRIC

1831 2745 3546 4378 4460 5321 5558 6320 6321 6459  
7309

## SUPERSONIC, ONE-DIMENSIONAL

1154 1900 3546

## SUPERSONIC, TWO-DIMENSIONAL

402 1154 1830 4377 5321 6268 9668 9786

## THREE-DIMENSIONAL

477 1141 7498

## TRANSONIC

414 1832 2619 2667 3562 4369 5318 5319 5320 5335  
6266 6274 6276 7089 7090 7092 7093 7966 7967 7968  
7969 7970 9661 9662 9663 9664

\*SEE ALSO\*--- AEROTHERMOACOUSTICS --  
AEROTHERMOCHEMISTRY -- AEROTHERMODYNAMICS --  
BODIES, COMPRESSIBLE FLOW PAST -- BOUNDARY LAYER--  
CONDENSATION, HIGH SPEED FLOW -- DETONATION AND  
DEFLAGRATION -- DIFFUSERS -- DRAG AND LIFT,  
COMPRESSIBLE FLOW -- FREE BOUNDARY, HOLOGRAPH  
METHODS -- GASDYNAMICS -- HEAT TRANSFER -- JETS --  
NOZZLES, COMPRESSIBLE FLOW -- OPTICAL TECHNIQUES--  
OSCILLATIONS IN FLUIDS -- PIPE FLOW,  
COMPRESSIBLE -- POROUS MEDIA, COMPRESSIBLE FLUID  
FLOW -- RAREFIED GASES -- SECONDARY FLOW,  
COMPRESSIBLE -- SHOCK WAVES IN FLUIDS -- UNSTEADY  
FLOW, COMPRESSIBLE

## FLOW, INCOMPRESSIBLE

1451 3088 3478 3479 3482 5367 5791 6227 6286 9960

## CIRCULATION

698 1807 2802 3567 5284 7063 7241 8754 9643

## COUETTE

376 389 1090 1856 3437 3440 3443 4319 4342 5297  
6454 6474 7928 7958 9619 9641

## EQUATIONS

379 380 392 1079 1083 1084 3478 3481 3490 4353  
4354 5296 6239 6246 6462 6695 7287 8760 9642 9654

## IRROTATIONAL

369 1158 3561 3574 3860 8864 9634 9635

## FLOW, INCOMPRESSIBLE \*CONTINUED\*

## NON-NEWTONIAN

352 353 354 383 1792 2573 2574 2575 2582 3437  
3438 3444 3446 4312 4314 4316 4318 4319 4342 5265  
5267 5269 5270 5314 5315 5492 6217 6219 6220 7026  
7029 7084 7924 7928 7953 7997 7998 8221 8771 8807  
9164 9617 9619

## NONVISCIOUS

774 779 1073 1135 1906 2184 4346 4347 5282 6243  
7059 8151 8751 8752 8761 8862

## NONVISCIOUS, ROTATIONAL

1162 1806 1808 1918 2600 3593 4440 4443 5290 5435  
5443 6354 7062 7946 8831

## NONVISCIOUS, STRATIFIED

7946

## ORIFICES

1925 4319

## POISEUILLE

376 389 1093 1098 1859 2573 2685 2845 3440 3443  
4340 4349 4351 4352 5272 5297 7136 9730

## STABILITY

445 542 544 1092 1098 1824 1906 1972 1973 1974  
1976 2573 2685 2712 2723 2784 3505 3508 3509 3511  
3588 3670 3673 3674 3679 3683 4337 4342 4348 4349  
4351 4360 4518 4521 4523 4525 4527 5298 5313 5435  
6248 6299 6327 6328 6331 6391 6396 6399 7035 7084  
7136 7148 7235 7237 7243 7311 7313 7409 7944 7946  
7950 8059 8304 8758 8766 8767 8770 8809 8837 8849  
8850 8909 8910 9619 9636 9649 9650 9817 9873

## VISCIOUS

398 399 1084 1437 1861 1910 2032 2597 2712 3497  
3499 3502 3758 3783 4350 4410 4414 4581 4583 4586  
5293 5301 5559 6240 6242 6243 6244 6327 6457 6458  
6565 7049 7050 7067 7068 7127 7433 7510 8247 8755  
8768 8798 8849 8989 8990 9651 9866

## VISCIOUS, CHEMICAL REACTIONS

9165

## VISCIOUS, HEAT ADDITION

378 1081 1815 2613 3511 3512 4355 5420 7950 7951  
8766 9619 9637 9641

## VISCIOUS, HIGH DENSITY

6401

## VISCIOUS, HIGH VISCOSITY

2582

## VISCIOUS, MASS ADDITION

1090 1814 6250 7073

## VISCIOUS, MULTIFLUID

362 1819 7085 9887 9874

## VISCIOUS, MULTIPHASE

385 450 1088 1089 4356 4358 5298 6247 6339 7951  
9093 9165 9642

## VISCIOUS, SECONDARY

1091 1092 3660 3676 4417 5304 5312 5317 6348 8055  
8070 9644 9652 9711

## VISCIOUS, SMALL REYNOLDS NUMBER

377 381 390 393 687 1089 1091 3495 3498 3550  
4318 5292 5300 6251 6254 7026 7072 7948 7962 8066  
8067 8763 9637 9639

## VISCIOUS, STRATIFIED

378 511 3459 4331 4332 4351 4360 5289 6328 6569  
7047 7151 7242 7935 7950 7957 8758 8849

## VISCIOUS, VARIABLE FLUID PROPERTIES

395 396 7962

## FLOW, INCOMPRESSIBLE \*CONTINUED\*

\*SEE ALSO\*--- BODIES, INCOMPRESSIBLE FLOW PAST --  
 BOUNDARY LAYER, INCOMPRESSIBLE FLOW --  
 CAVITATION -- DRAG AND LIFT, INCOMPRESSIBLE  
 FLOW -- FLOW MEASUREMENT -- HYDRAULICS --  
 HYDROLOGY -- JETS -- LAMINAR FLOW,  
 INCOMPRESSIBLE -- MULTIPHASE FLOW -- NOZZLES,  
 INCOMPRESSIBLE FLOW -- OSCILLATIONS IN FLUIDS --  
 PIPE FLOW, INCOMPRESSIBLE -- POROUS MEDIA,  
 INCOMPRESSIBLE FLUID FLOW -- ROTATING  
 CYLINDERS, FLOW BETWEEN -- ROTATING DISKS,  
 FLOW BETWEEN -- ROTATIONAL FLOW -- SECONDARY  
 FLOW, INCOMPRESSIBLE -- TURBULENCE -- UNSTEADY  
 FLOW, INCOMPRESSIBLE -- VORTEX FLOW -- WAKES --  
 WINGS, INCOMPRESSIBLE FLOW

## FLOW, INTERNAL

1104 1215 5366 9657 9851

## ANNULAR PASSAGE\*

5295 5297 5304 6242 6252 7071 7083 7085 8026 9853

## DUCTS, CONSTANT AREA

5295 5314 5315 6263 8777

## DUCTS, VARIABLE AREA

1437 1910 7078 9691 9697

## FLOW MEASUREMENT

373 374 506 508 509 510 528 1167 1175 1930  
 2716 2738 3550 3608 4334 4462 4463 4465 5742 6240  
 6339 6376 7037 7194

## ELECTRONICS

2737 2747 4320 7475 8878 8879 10008

## MAGNETO-FLUID-DYNAMIC

1931 1935

## NOZZLES

511 529 1168 1172 4459 5449 8874

## ORIFICES

1095 1173 1382 1925 2134 2394 3461 3462 4461 6357  
 6366 9627 9963

## PROPELLER TYPE

3619

## ULTRASONIC

1800 2737 5448

## VARIABLE AREA

6367 7475

## VOLUMETRIC METERS

4464

\*SEE ALSO\*--- HOLOGRAPHY -- PRESSURE  
 MEASUREMENT -- HYDRAULIC STRUCTURES, WEIRS

## FLOW IN THIN FILMS---\*SEE\* THIN FILMS, FLOW

FLOW THROUGH GRIDS AND SCREENS--- \*SEE\* GRIDS AND  
 SCREENS, FLOW THROUGHFLOW THROUGH POROUS MEDIA--- \*SEE\* POROUS MEDIA,  
 FLUID FLOW, WITH MODIFIERS

## FLOW VISUALIZATION--- \*SEE\* OPTICAL TECHNIQUES

## FLUE GASES

588 2014 5511 8213 8934

\*SEE ALSO\*--- AIR PREHEATERS

## FLUID POWER

3974 5436

## CONVERSION

4884

## FLUID POWER \*CONTINUED\*

## TRANSMISSION

5436

## FLUIDICS

51 2610 2611 2761 3069 3070 4365 4884 4885

## FLUIDIZED BEDS--- \*SEE\* BED, FLUIDIZED

## FLUTTER

1317 1320 5610 8160 8161 8162 8163 9025 9401 9891  
 9892

## HELICOPTER ROTORS

9774

## NONCLASSICAL

5606

## PANELS

1318 2885 2886 3798 3799 3800 5604 5607 7337 9023  
 9894 9895

## SHELLS

193 2067 5602 5603 5607 9021 9893

## SUBSONIC FLOW

7335

## SUPERSONIC FLOW

2885 3798 7340 9893 9895

## TAILS AND CONTROL SURFACES

1321 2068 2884 5670 7335

## TURBOMACHINES

2887 8867

## WINGS

2068 9026

\*SEE ALSO\*--- HYDROFOILS, FLUTTER -- OSCILLATIONS  
 IN FLUIDS -- UNSTEADY FLOW -- VIBRATION, AIRPLANES

## FORGING

257 258 5170 5893

\*SEE ALSO\*--- DRAWING -- EXTRUDING -- FORMING --  
 ROLLING

## FORMING

262 3318 3319 5180 5181 7826

## EXPLOSIVE

2461 2472 6092 6093 7826

## METAL

117 995 2460 2506 3303 3304 4212 5172 5179 6912  
 6915 6917 6919 6921 6924 8054

\*SEE ALSO\*--- DRAWING -- EXTRUDING -- FORGING --  
 ROLLING

## FOUNDATIONS

243 252 311 986 1420 1714 4199 5149 6013 6067  
 7811 7812 7866 9483

## DEEP FOUNDATIONS

989 4192 5155 6062 6063 6065 7810 7813 8589 8590  
 8591 8593 9431 9485 9486

## FOOTINGS

2512 2527 5156 6064 8588

## MACHINE FOUNDATIONS

6015 6846 6859 8587 8594

## PIERS

7807 9484

## FOUNDATIONS \*CONTINUED\*

## SETTLEMENTS

5146 6060 6061 7808

## SHALLOW FOUNDATIONS

987 2450 2453 4196 4197 4198 5141 5152 8592 9481  
JANUARY FEATURE ARTICLE

## SHEET PILES

5157 7818

\*SEE ALSO\*--- ELASTIC FOUNDATIONS -- GRILLAGES --  
SOIL MECHANICS -- VIBRATION, FOUNDATIONSFOURIER SERIES--- \*SEE\* SERIES EXPANSION AND OTHER  
APPROXIMATIONS, FOURIER SERIES

## FRACTURE

269 1007 1727 1729 1737 4222 4224 4238 6096 6103  
6104 6106 6931 8651 9477 9545

## ANALYSIS

1721 1723 1726 2473 3328 3329 3335 4221 4225 4226  
5195 6100 6101 6107 6113 6726 6928 6933 6934 7827  
8616 8621 8622 8623 8625 8626 8628 8629 8630 8632  
8634 9514 9518 9521 9522 9528

## BRITTLE

281 1003 1004 1005 1006 2474 3322 3326 3330 3334  
3336 3350 4220 4223 4973 5187 6098 6099 6935 6937  
7828 7855 8617 8618 8620 9331 9513 9515 9516

## CREEP

886 6726 6728

## DUCTILE

886 1608 1724 2462 2481 3304 5896 6736 6940 7829  
8437 9520

## TESTING

1002 1720 1725 2486 2488 2497 3325 5183 5185 6114  
6122 6928 6927 6929 6930 6936 6941 6942 7830 7832  
7840 8437 8615 8619

## TOUGHNESS

1728 3321 3327 3332 4247 6932 6938 7834 8624 9517

\*SEE ALSO\*--- CRACK PROPAGATION -- MATERIAL TEST  
TECHNIQUES, FRACTURE TOUGHNESS

## FRAMES AND BENTS

5789 6177 7912

## ANALYSIS

314 315 324 325 336 1041 1752 1760 1761 2540  
3387 4271 5214 5220 5231 6167 6180 6181 6183 7888  
7889 7890 7891 7892 7911 8676 8677 8686 8697 9577  
9578 9579

## DESIGN

317 2538 3401 6166 7878 8684

## STABILITY

2541

## STRESSES AND DEFLECTIONS

5891

## TESTING

2504 2505 4241 4268 5198 6181 6993

\*SEE ALSO\*--- BUCKLING, FRAMES

## FREE BOUNDARY

702 2139 3480 3839 5667 8220 9638

## CAVITIES

1809 3503 7065 7066 7189 9635

## FLOW

393 5285 5286 5316 6255 7945 8598 9634 9635

## FREE BOUNDARY \*CONTINUED\*

## HODOGRAPH METHODS

1074 6257

## WAKES

483 3505 5305 6255 6257 7065

\*SEE ALSO\*--- CHANNELS, OPEN, FLOW

FREE CONVECTION--- \*SEE\* HEAT TRANSFER, CONVECTION

FREE-MOLECULE FLOW--- \*SEE\* RAREFIED GASES

FREE SURFACE---\*SEE\* FREE BOUNDARY

## FREEZING

987 1183 1987 5150 5152 6425 6902 6904 7263 8037  
8210

## FREON

4546 4549

## FRETTING

5729 8281

\*SEE ALSO\*--- CORROSION -- FATIGUE, FRETTING --  
WEAR

## FRICTION

297 956 2418 2423 3884 4180 4786 4787 4788 4789  
4798 5729 6175 6580 6583 7448 8278 9144 9991

## ROLLING, SOLID AND SOLID

1435 2464 2978 3879 4794 4795 4796 6579 7459 8276  
8277 8283 8287 8289 9996

## SLIDING, SOLID AND FLUID

737 4784 4791 4792 5717 7453 8283 9146 9992 9994

## SLIDING, SOLID AND SOLID

243 343 725 726 727 728 729 733 738 746  
1420 1421 1422 1423 1779 2161 2162 2163 2164 2168  
2177 2332 3100 3418 3866 3867 3868 3869 3870 3871  
3872 3873 3874 3883 4191 4772 4773 4774 4775 4776  
4777 4779 4790 4800 5099 5121 5712 5714 5715 5716  
5717 5721 5722 5723 5726 5727 5893 6089 6090 6577  
6578 6581 6804 6860 6923 7451 7452 7568 8274 8277  
8279 8280 8282 8288 8296 8495 9145 9147 9410 9997

\*SEE ALSO\*--- DAMPING CAPACITY OF MATERIALS

## FUELS

## LIQUID

4543

## NUCLEAR

2026 2027 8979

## PETROLEUM

3739 5545

\*SEE ALSO\*--- COMBUSTION, LIQUID FUELS --  
PROPELLANTS, FUELS -- ROCKETS, LIQUID FUEL --  
ROCKETS, SOLID FUEL

FUEL SLOSHING--- \*SEE\* LIQUID SLOSHING

## FURNACES

586 1259 2014 3732 3734 4512 5309

\*SEE ALSO\*--- HEAT TRANSFER, FURNACES



## G

- GAME THEORY  
1469 2266 4887 6628 9267
- GAS TURBINES--- \*SEE\* TURBINES AND TURBOMACHINERY,  
GAS
- GASES--- \*SEE\* UNDER MODIFIER
- GATES, HYDRAULIC--- \*SEE\* VALVES AND GATES,  
HYDRAULIC
- GEARS  
2552 2561 3421 3422 5258 6857
- DESIGN  
345 346 1774 1776 1777 1778 2553 3417 3419 3420  
4302 4303 6191 6192 7016 8708 8724 9600
- FATIGUE AND WEAR  
732 4982 8287 8706 9991
- KINEMATICS  
1772 1773 1775 8708 9595 9597
- LUBRICATION  
1774 3879 4786 4787 4788 4789 4798 9991
- TRAIN  
2551 2553 3418 4301 6199 7015 7017 7018 8723 9595
- \*SEE ALSO--- LANDING GEARS -- VIBRATION, GEARS --  
WEAR
- GEOPHYSICS  
466 954 966 1388 1390 1391 1681 1699 2182 2442  
2456 2784 3241 3262 3674 3846 4179 4591 4749 4753  
4755 4769 5677 5678 5693 6557 7031 7426 7428 7429  
8125 8170 8235 8236 8240 8241 8249 8252 8253 8254  
8256 9113 9116 9117 9120 9881 9882 9975 9977 9982
- EXPLORATION  
708 1389 2432 4752 4754 5679 5680 5682 5684 7419  
7421 7422 7425 8234 8238 8239
- \*SEE ALSO--- PLASTICITY, GEOPHYSICS
- GIRDERS  
270 334 4272 6176 6212 7880 8452 8655 8689
- GLASS  
269 1007 1957 2327 3272 3273 4218 4219 4973 6224  
8670
- GLASS FIBERS  
1020 2482 6105
- GLIDERS  
3566 4896 6489 7360 9030 9897
- GRANULAR MEDIA  
1379 2132 3822
- FLOW OF  
2943 3824 5657 9963
- FLOW THROUGH  
2136 6547 8226 9968 9969
- \*SEE ALSO--- PARTICLES -- POROUS MEDIA --  
WAVES, GRANULAR MEDIA
- GRAPHICAL METHODS  
1486 1488 2231 2232 2269 3084 3950 4305 5824 6661  
6662 7534 8370 8554 8719 8722
- GRAPHITE  
1197 3872
- GRAVIMETRICS  
1565 3097 3105 4919 4921 8391  
SEPTEMBER FEATURE ARTICLE
- GRAVITY WAVES IN LIQUIDS  
2967 3574 3580 3581 4360 4429 5691 5704 6561 6564  
7172 7176 7428 8241 8256 9625 9658
- BEACHES  
6335 9772
- BORE  
3587 7174
- BOTTOM DISCONTINUITIES  
1895 7168 9771
- BOTTOM IRREGULARITIES  
1391 8852 9772
- BOUNDED MEDIA  
3864 5432 9781
- BREAKING  
3578 3584 3587 5688
- BREAKWATER  
3850 4435 6555 8833 8859
- ENERGY SPECTRUM  
5433 5688 5711 6330 8844
- ENERGY TRANSPORT  
5692
- FINITE DEPTH  
467 1895 3585 5428 6334 8843 8852 9782
- GROUP VELOCITY  
5690
- NONLINEAR THEORY  
1148 1907 3578 3584 3591 5428 7171 8243 8262 8840
- OCEAN  
1147 3595 4760 5687 5690 6559 9123 9124 9981
- OPEN CHANNELS  
366 368 471 3456 3585 3591 4327 4430 5279 5429  
5431 6336 9773 9774
- ROTATING FLUID  
3583 8843 9771
- SHALLOW WATER  
1902 2713 2714 4430 6333 6336 7171 8845 9770
- SLOPING BOTTOM  
1902 5434 8844 8847
- SOLITARY  
469 4430 5431
- STANDING WAVES  
3484 3585
- STRATIFIED  
1148 1151 3578 4425 4426 4427 4428 5426 5429 7168  
7170 8834 8840 8841 8842 8847 9771
- SURF AND BREAKERS  
2968
- SURFACE WAVE PROFILE  
1899 2711 7167 8863
- TIDAL  
466 468 2708 2715 3577 6562

## GRAVITY WAVES IN LIQUIDS \*CONTINUED\*

TSUNAMI  
3582 6563

TWO-DIMENSIONAL  
1895 2720 4428 8832

VISCOUS EFFECTS  
467 1147 1150 1899 1902 3582 4425 5426 5427 5430  
6331 7169 8842 8845 8846 9067 9768

WAVE ABSORBER  
5694 8859

WAVEMAKER  
478 1149 1159 1160 2720 8749

WAVEMAKING RESISTANCE  
1899 1903 4427 6332 7170 8834

WIND GENERATED  
472 2717 3588 3595 5426 5711 6330 6359 7167 9768

GRIDS AND SCREENS, FLOW THROUGH  
1080 4728 7404

GRILLAGES  
318 323 6996 7731 8511 8696 9434 9566

\*SEE ALSO\*--- VIBRATION, GRILLAGES

GRINDING  
266 267 997 998 2471 3307 3309 5177 6091 6923  
7824 8208 8209 9094 9961

\*SEE ALSO\*--- CUTTING PROCESSES -- FINISHING

GROUND EFFECT MACHINES  
639 640 641 642 1417 4622 4623 4624 4625 4626  
4627 4628 5413 6481 6484 6485 6486 6487 6488 7345  
7348 8024 9027 9028 9029 9899

\*SEE ALSO\*--- AERODYNAMIC INTERFERENCE, GROUND  
EFFECT -- HYDROFOILS, CRAFT -- STOL -- VTOL

GROUND WATER--- \*SEE\* HYDROLOGY, GROUNDWATER

## GUIDANCE SYSTEMS

INERTIAL  
8390

MISSILES  
6889 7165 9049

\*SEE ALSO\*--- SPACE NAVIGATION AND GUIDANCE

GUIDED MISSILES--- \*SEE\* MISSILES

GUNS  
2097 3275 4656 6151 9047

GUST LOADS  
1893 1894 2888 7338 9025

\*SEE ALSO\*--- AIRPLANE, DYNAMIC LOADS

GYROSCOPICS  
75 76 77 78 1559 2274 2279 3072 3094 3099  
3101 3103 3941 3963 3964 3965 4001 4012 5829 5840  
5843 6000 6695 6697 6698 7563 7769 8389 9268 9279  
9280 9281

ELECTROSTATIC  
4918

ROTARY  
46 1360 2285 4011 4915 5842 6696 7579 7582 7583  
8348 8390

## GYROSCOPICS \*CONTINUED\*

\*SEE ALSO\*--- GUIDANCE SYSTEMS, INERTIAL -- SPACE  
NAVIGATION AND GUIDANCE

## H

HARBORS  
6337 6555 7039 7428

HARDENING  
730 4958 8729

HARDNESS  
3874 4781 5712 5899 6079 8287

TEST TECHNIQUES  
297 1750 5899 6822

HEAT CONDUCTION--- \*SEE\* HEAT TRANSFER, CONDUCTION

HEAT CONVECTION--- \*SEE\* HEAT TRANSFER, CONVECTION

HEAT EXCHANGERS  
532 546 566 568 1244 1248 1479 1812 1960 1991  
2770 2773 2776 2787 2795 2796 2797 2798 2799 2812  
3664 3675 3707 4510 4512 4515 4542 4548 4549 5479  
5494 5503 5508 5509 5510 5518 6420 6421 6422 7230  
7272 7277 7279 7280 8040 8084 8903 8904 8915 8935  
8940 9811 9813 9838

CROSSFLOW  
2794 7276

NUCLEAR REACTORS  
541 564 1212 1958 1966 2771 3684 4511 4535 4550  
5474 5479 7224 7230 8045 9807 9837

\*SEE ALSO\*--- AIR PREHEATERS -- BOILERS

HEAT PUMPS  
4495

\*SEE ALSO\*--- REFRIGERATION, AIRCONDITIONING

HEAT RADIATION--- \*SEE\* HEAT TRANSFER, RADIATION

HEAT TRANSFER  
1247 1429 1451 1858 1969 1978 1991 2767 2807 3477  
3996 3997 4481 4545 4899 5470 5516 6286 6394 7208  
7228 7230 8001 8002 8040 8083 8097 8904 8914 9699  
9811 9960

BLADES, TURBOMACHINERY  
4509 4526 5484 7232 8069

BOILING  
537 559 561 563 564 565 1212 1236 1237 1238  
1239 1241 1988 1989 1990 2792 2803 3704 3705 3706  
3720 4514 4535 4536 4537 4538 4539 4540 4541 4546  
5507 6394 6412 6413 6414 6416 6417 6418 7265 7266  
7267 7268 7269 7270 7271 7290 8084 8085 8086 8928  
8931 8932 8933 9816 9835 9836

BOUNDARY LAYER  
562 1120 1211 1214 1253 1254 1827 1865 1971 2661  
2774 2778 2813 2816 2856 3545 3665 3668 3671 3672  
3680 3686 3687 3706 3718 3719 4517 4519 4553 4555  
5490 5492 5523 5524 6389 6405 6428 6573 7231 7240  
7246 7250 7286 7289 7290 7996 8049 8057 8072 8101  
8102 8310 8937 8944 9718 9819 9820 9824 9827 9828  
9830 9840 9841

BOUNDARY LAYER, WITH SEPARATION  
3686 5517 6386 7249 9826 9829

BOUNDARY LAYER, WITHOUT SEPARATION  
5390 5517 8296

## HEAT TRANSFER \*CONTINUED\*

## CHEMICAL REACTION PRESENT

557 572 2001 2002 2778 2808 2814 2815 3715 3719  
5522 5524 7280 7284 7285 7287

## COMBINED MECHANISMS

1209 1222 1225 1986

## CONDENSATION

549 1242 1243 1846 2793 3687 3708 3709 3712 4544  
6419 7270 7272 7273 7274 7275 8088 8089 8098 8930  
8934 8935 8936 8937

## CONDUCTION, INTERNAL SOURCES

111 1205 1956 3657 3696 4533 5264 5474 5489 6383  
7224 8043 8050 8058 8114 8986

## CONDUCTION, NUMERICAL METHODS

15 531 1460 1479 3028 3703 5478 5790 6643 8051  
8052 8332 8900 9810 9812

## CONDUCTION, STEADY

29 30 532 534 555 1205 1210 1956 2777 3656  
4547 5478 5479 5480 5482 5489 5499 6381 6383 6695  
7225 7226 7227 7245 7255 8042 8047 8050 8053 8074  
8900 8901 8919 9807 9812

## CONDUCTION, UNSTEADY

531 533 558 1208 1233 1234 1235 1245 1252 1958  
1959 1963 1968 2151 2771 2775 3657 3658 3669 3691  
3702 3916 4501 4502 4505 4506 5474 5475 5477 5481  
5483 5485 5497 5500 5501 5502 6379 6380 6382 6384  
6395 6402 6408 6423 6426 7221 7222 7229 7252 7263  
7264 7284 8041 8042 8043 8044 8046 8048 8049 8051  
8052 8054 8055 8081 8089 8094 8906 8926 8927 8946  
9809 9810 9834 9835 9839

## CONTACT RESISTANCE

4503 4504 6386 7227

## CONVECTION, FORCED

537 539 1965 1998 2773 2794 2795 2796 3659 3661  
3663 4515 4528 4543 4552 5508 6422 6425 7244 7247  
7273 7274 7277 8056 8061 8080 8085 8985 9815 9821  
9833

## CONVECTION, FORCED, GASES

536 541 2774 2780 3710 4516 4522 4556 6406 7250  
8062 8103 9742 9818

## CONVECTION, FORCED, LAMINAR

535 538 1211 1215 2779 3660 3664 3665 3696 4513  
5486 5487 5491 6421 7231 7233 7287 8067 8068 8079  
8905 8907 8947 8948 9808

## CONVECTION, FORCED, LIQUIDS

548 550 551 1216 3685 4510 4512 6395 6398 6429  
7278 8045 8093 8104 8902 8905 8935 8938 9814 9837

## CONVECTION, FORCED, SOLID SUSPENSIONS

7249 7278 7416 8066 8090 9823

## CONVECTION, FORCED, TRANSITION

6392

## CONVECTION, FORCED, TURBULENT

1213 1964 1968 1970 1971 2776 3662 3666 3667 3668  
4507 4556 5488 5504 6387 6393 6420 6428 7248 7276  
8055 8060 8064 8102 9823 9825 9828 9829

## CONVECTION, FREE

545 546 547 1218 1815 1972 1973 1974 1975 2781  
2783 2784 3659 3663 3670 3672 3673 3674 3677 3678  
3679 3680 3681 3682 3683 3709 4518 4520 4521 4525  
4526 4527 4546 5492 5494 5505 5735 6248 6396 6399  
6401 6427 7235 7236 7237 7240 7241 7243 7244 7246  
7258 7270 7281 7954 8059 8070 8071 8766 8809 8908  
8909 8910 8911 8912 8913 8919 8922 9725 9817 9821  
9830 9841 9865

JULY FEATURE ARTICLE

## HEAT TRANSFER \*CONTINUED\*

## CONVECTION, FREE, GASES

1219 2785 8082

## CONVECTION, FREE, LAMINAR

440 543 1266 2782 3436 3671 3676 4519 6400 7234  
7238 7242 7288 9819

## CONVECTION, FREE, LIQUIDS

1216 1976 2785 3685 4524 5584 7268 7310

## CONVECTION, FREE, TRANSITION

542 544 2782 7235 7237 7243

## CONVECTION, FREE, TURBULENT

1217 1219 1220 4523 5493 5498 9822

## CRITICAL HEAT FLUX

563 1212 1238 1989 1990 3704 3705 4514 4535 4536  
4537 4539 4546 6390 6412 6413 6418 7265 8916 8932  
8942

## CRITICAL REGION

1213 3677 5510 5784 7244 8083 9641

## CRYOGENICS

1198 2777 4508 4537 6386 7217 8940 9837

## DROPLETS

535 1242 2793 3713 3714 3715 4544 4552 6571 8093  
8104 8902 8942 8943 9814

## ELECTRICAL MACHINES

5736

## EVAPORATION

560 562 570 1973 3707 3713 3714 3715 4515 4543  
5494 5505 6413 6416 6424 7359 8095 8098 8100 8929  
8930 8942 8943 9834

## EXPERIMENTAL METHODS

1246 3621 3701 5488 5513 5515 6380 6389 6423 6430  
7221 7223 7281 7282 7314 8082 8915 9005 9810

## EXTENDED SURFACES

546 564 2770 2797 2798 4547 5479 5518 7245 7255  
7272

## FLAMES

1231 1962 1993 6442

## FLUIDIZED BEDS

1967 1997 2786 6397 8066 8086 8090

## FURNACES

1995 2786 8921 9813

## G-VARIATION EFFECTS

543 6418 7268 7270 8916 8933

## INSULATION

532 567 1206 2769 2772 3712 4501 7275

## LIQUID METALS

548 549 550 1964 1977 2806 3684 3685 4528 6379  
6400 7230 7247 7248 8045 8063 8064 8065 8091 8936  
9825

## MEASUREMENTS

451 533 1873 1992 1993 2012 2622 2802 2804 2806  
3542 4551 4807 5488 6389 7258 7954 8306

## MELTING

558 1986 3500 3502 6399 7264 8046 8081 8100 8927

## PACKED BEDS

1967 1996 1997 2133 4859 9101

## PHYSIOLOGICAL ASPECTS

1961 4506 4807 5483 5506 6403 7221 7278 8306

## HEAT TRANSFER \*CONTINUED\*

## POROUS MEDIA

1207 1217 2768 3714 3717 3843 4746 4747 5674 6554  
8048 8224 9105 9110 9839 9971

## RADIATION

553 566 723 1222 1224 1225 1985 2003 2052 2153  
3692 3786 4550 5385 5498 5499 5506 5583 6408 7986  
7991 8076 8782 9160

## RADIATION, ABSORBING TRANSMISSION MEDIA

513 536 552 554 555 622 623 1209 1223 1228  
1230 1231 1253 1405 1868 1980 1981 1982 1983 2149  
2152 2788 2789 2790 2975 3544 3545 3689 3690 3694  
3695 3696 3697 3698 3700 4530 4531 4532 4533 5490  
5495 5496 5699 6404 6405 6406 6413 7229 7252 7253  
7254 7256 7257 7259 7260 7438 8074 8900 8901 8917  
8920 8921 8922 8923 8924 9127 9812 9830 9831 9832

## RADIATION, GEOMETRICAL PROBLEMS

556 1228 2787 2791 3688 3693 3699 4529 4547 5699  
6407 7251 7255 7261 7262 8052 8073 8077 8078 8918

## RADIATION, INSTRUMENTS

1405 2801 2805 3701 4766 5514 9131

## RADIATION PROPERTIES

2791 3694 3699 3700 4534 6409 6410 6411 7203 7251  
7260 7261 8075 8924 8925

## RADIATION, UNSTEADY

621 2790 3658 3695 4532 5481 5497

## RAREFIED GASES

1984 2789

## ROTATING SURFACE

1249 1999 2775 3674 3675 4507 4520 4526 7236 7239  
8054 8056 8059 8069 8907 8911 8913 8944 8947 8948

## SIMILARITY METHODS

8913 8914

## SOIL

1710 7226 8041 8930

## SOLIDIFICATION

558 1233 1235 1987 3702 3703 5482 5501 5502 7263  
8046 8079 8089 8927

## STAGNATION POINT

540 552 573 574 1125 1230 1998 3544 3710 3718  
4373 4416 4471 7250 7256 8057 8100 8781 9721 9840

## SUBLIMATION

573 575 1249 1999 2798 8082 9839 9841

## SURFACE ROUGHNESS EFFECT

2776 4503 4504 4534 4536 4539 4540 6387 6388 6409  
6412 6417 8080 9818

## TURBULENT

439 540 1264 3662 3666 4553 6293 6294 7289 8072  
9822 9825 9828

## TWO-PHASE FLOW

559 561 565 570 1237 3661 4510 4538 4552 4554  
5504 5505 5507 6390 6415 6419 6420 7249 7265 7269  
7273 8087 8096 8928 8933 8939 9816

## VIBRATION EFFECT

3663 4553 5750 9815 9836

\*SEE ALSO\*--- ABLATION -- AERODYNAMIC HEATING --  
AEROTHERMODYNAMICS -- ANALOGIES, HEAT TRANSFER --  
BOILERS -- BOUNDARY LAYER -- COMBUSTION, HEAT  
TRANSFER ASPECTS -- CRYOGENICS --  
CUTTING PROCESSES -- DIFFUSION, THERMAL --  
DRYING -- FREEZING -- FURNACES -- LIQUID FILM,  
COOLING -- LIQUID METALS -- MAGNETO-FLUID-  
DYNAMICS, HEAT TRANSFER -- MASS TRANSFER,

## HEAT TRANSFER \*CONTINUED\*

\*SEE ALSO\*--- \*CONTINUED\*

EVAPORATION -- MELTING -- METEOROLOGY,  
HEAT TRANSFER -- MODEL STUDIES, HEAT TRANSFER --  
POTENTIAL THEORY, HEAT TRANSFER --  
THERMODYNAMICS -- THERMOELASTICITY --  
THERMOPHYSICAL PROPERTIES -- TURBINES AND  
TURBOMACHINERY -- WINGS, HEAT TRANSFER

## HEAT TREATMENT

3419 6094 7915 7916 9526 9613

\*SEE ALSO\*--- STRESS RELIEVING

## HEATERS

2006 3621 7279 8962

## HEATING AND VENTILATION

1204 1248 1957 1994 2799 5472 6403 7245 7258 7275

\*SEE ALSO\*--- REFRIGERATION, AIRCONDITIONING

## HELICOPTER

4615 4616 8012

## CONTROLS

9898

## ROTOR

497 1679 1685 3244 3560 5424 7336 8550 8557 9898

## STABILITY

9898

\*SEE ALSO\*--- PERFORMANCE, HELICOPTER --  
VIBRATION, HELICOPTERS

## HELIUM

1929 4508 7212

## HIGH LIFT DEVICES

6316 6324 6463 7343 8012 8826 9745 9761

## HIGH PRESSURE

7826

## APPARATUS

2518 4249

## SOLIDS

3146 4977 8434

## SYSTEMS

5359

## TESTING

878 1706 3268 3424 6153 6935 8434

\*SEE ALSO\*--- MATERIAL TEST TECHNIQUES, HIGH  
PRESSURE -- PRESSURE VESSELS --  
THERMODYNAMICS -- THERMOPHYSICAL  
PROPERTIES

## HIGH TEMPERATURE PROPERTIES OF MATERIALS

4043 4227 4228 4229 5187 6106 6115 6136 7914 7915  
8642 9144

## FERROUS METALS

877 3267 4956 9526

## NONFERROUS METALS

1423 1609 3132 4955 9333

## NONMETALS

3139 3883 4051 9147

## HIGHWAY AND RUNWAY CONSTRUCTION

663 1719 3279 4194 4201 4202 4204 5794 6848 7517  
7814 7815 7816 7817 8590 8599

## HIGHWAY AND RUNWAY CONSTRUCTION \*CONTINUED\*

\*SEE ALSO\*--- BRIDGES, HIGHWAY -- TRAFFICABILITY

HISTORY OF SCIENCE AND TECHNOLOGY  
715

## HOLOGRAPHY

1021 2510 3357 3362 3620 4252 4699 4704 5209 6024  
6137 7388 7408 7853 7864 8658 8659 9070 9533 9545  
9937

\*SEE ALSO\*--- LASERS

## HUMAN ENGINEERING

749 758 1436 1961 2272 2983 2988 2990 3429 3885  
3889 3895 3896 3899 4506 4806 4814 4815 5483 5506  
5741 5743 5744 5746 5794 6403 6427 7462 7519 8297  
9156 9999  
DECEMBER FEATURE ARTICLE\*SEE ALSO\*--- BIODYNAMICS -- BIOMECHANICS --  
MAN-MACHINE SYSTEMS

## HYDRAULIC JUMP

365 1066 2588 3458 4323 6229 6231 7051

## HYDRAULICS

2991 3479 5281 7203

## DENSITY CURRENTS

7940

## DYNAMICS OF LIQUIDS

1070 5280 6227 7042 8245 8747 9980 3464

\*SEE ALSO\*--- BACKWATER CURVES -- CANALS --  
CAPILLARY FLOW -- CAVITATION -- CHANNELS -- FLOW  
MEASUREMENT -- FLUID POWER -- FREE BOUNDARY --  
HYDRAULIC JUMP -- HYDRAULIC STRUCTURES --  
PIPE FLOW -- SEEPAGE -- STREAMS, NATURAL --  
SUBMERGED BODIES -- VALVES AND GATES --  
WATER HAMMER

## HYDRAULIC STRUCTURES

703 3467 3470 4285 4332 5694 6562 7045 7843 7937  
8023

## CONDUITS

1062 5793 8740

## PENSTOCKS

2737

## RESERVOIRS

7048 8744

## SPILLWAYS

3476 6367

## TRANSITION ELEMENTS

1067 3459 4329

## WEIRS

7036 7046 7939

\*SEE ALSO\*--- BULKHEADS -- COFFERDAMS -- DAMS --  
DOCKS -- GRAVITY WAVES IN LIQUIDS, BREAKWATER --  
PIPES -- VALVES AND GATES

## HYDROCARBONS

2015 5531 7456 8892

## HYDRODYNAMIC STABILITY

774 3512 5393 6303 7510 9648  
FEBRUARY FEATURE ARTICLE\*SEE ALSO\*--- BOUNDARY LAYER, STABILITY --  
FLOW, INCOMPRESSIBLE, STABILITY

## HYDROELASTICITY

1415 3246 6344 6346 7075 7177 8269 9054  
FEBRUARY FEATURE ARTICLE

## STEADY STATE

5308

## TRANSIENT

5710

\*SEE ALSO\*--- OSCILLATIONS IN FLUID

HYDROELECTRIC POWER PLANT--- \*SEE\* POWER PLANTS,  
HYDROELECTRIC

## HYDROFOILS

2599 4624 5288 5710 7065 7189 8271  
FEBRUARY FEATURE ARTICLE

## CRAFT

1416 3865 4625

## FLUTTER

8269

\*SEE ALSO\*--- CAVITATION, HYDROFOILS -- GROUND  
EFFECT MACHINES -- STOL -- VTOL

## HYDROGEN

2780 7952 9818

## HYDROGEN EMBRITTLEMENT

2476

## HYDROLOGY

712 713 714 1392 2143 2155 2964 2965 2966 7203  
7427 8242 9979

## FLOOD ROUTING

3608 5791

## GROUNDWATER

2139 2957 3840 3845 4745 5668 5675 6550 7937 8228  
9822 9978

## RAINFALL

2964 4359 4767 8210

## RUNOFF

7931

## SOIL AND WATER CONSERVATION

2963 3854 8246

\*SEE ALSO\*--- METEOROLOGY -- OCEANOGRAPHY --  
SEEPAGE -- SNOW -- WELLSHYPERSONIC FLOW--- \*SEE\* FLOW, COMPRESSIBLE,  
HYPERSONIC

## HYSTERESIS EFFECTS

118 119 3444 4050 4053 4861 4976 6742 7648 7656

\*SEE ALSO\*--- MATERIAL TEST TECHNIQUES,  
HYSTERESIS

## ICE

114 725 3656 3849 4688 6425 6576 6731 6902 7031  
7934 8237 8268

## ICING

1234 4359

## IGNITION

578 2004 2830 3721 3739 4558 6432 8950 8952



## IGNITION \*CONTINUED\*

CATALYZED  
7293 8966

FLUID PROPELLANTS  
2005 2818 2819 2820 3722 5526 5527 5528 6431 6433

SELF  
8951

SOLID PROPELLANTS  
2017 2817 7303 8949

SUPPRESSION  
2007

TEMPERATURE  
577 8951

\*SEE ALSO\*--- COMBUSTION, IGNITION DELAY --  
ENGINES, SPARK IGNITION

## IMPACT

974 1770 2435 2985 3813 3885 3886 4170 5072 5738  
5739 6863 7855 8721 9469 9471 9472

BEAMS, LATERAL  
330 4172 4174 6016 6896

BEAMS, LONGITUDINAL  
2287 3274 6886 6887 6900 7781 9478

CABLES AND STRINGS  
229 238 1704 7795 8308

EXPERIMENTAL  
229 241 8050 8576

HYPERVELOCITY  
978 1705 2443 5627 6052 6884 6899 7086 9479

PENETRATION  
5131 8665

PLATES  
231 2437 3271 3272 3273 3814 4044 5117 5122 6831

SHELLS  
959 1913 6011 6834 6897

SHIP HULLS  
975 8267

STRUCTURES  
234 237 2438 8647 8703 9452

TESTING EQUIPMENT  
2461 2516 5137 6050 6151 8299

TESTS OF MATERIALS  
234 1001 1706 1707 3135 3143 3267 3272 3273 3275  
3326 3895 5131 6149 6948 7796 8299 8666 9452 9556

VEHICLES  
3353 4143 4171 4801 4806 5137 5731 5741 7341 7577  
8297 8308 9480

WATER  
1913 2439 3592 4435 8266 8267

\*SEE ALSO\*--- FORMING, EXPLOSIVE --  
JETS, IMPACT -- SHOCK WAVES IN SOLIDS

## IMPEDANCE METHODS

659 2419 2420 3254 3890 4138 4144 4300 4675 4684  
5730 6023 6027 6509 6527 7377 7378 7466 7467 8182  
9927

\*SEE ALSO\*--- VIBRATION, IMPEDANCE METHODS

IMPLOSION  
9680

IMPULSE  
945 7584 7766 9277

INCOMPRESSIBLE FLOW--- \*SEE\* FLOW,  
INCOMPRESSIBLE

INERTIAL GUIDANCE--- \*SEE\* GUIDANCE SYSTEMS, INERTIAL

INFLAMMABILITY--- \*SEE\* COMBUSTION, INFLAMMABILITY

INFLATABLE STRUCTURES--- \*SEE\* STRUCTURES, INFLATABLE

INFLUENCE COEFFICIENTS  
4063 6996 7236

INFLUENCE LINES  
8697

INFORMATION THEORY  
783 7518 7519 7567

\*SEE ALSO\*--- PROBABILITY THEORY

INITIAL-VALUE PROBLEMS--- \*SEE\* DIFFERENTIAL  
EQUATIONS, ORDINARY, INITIAL-VALUE PROBLEMS --  
DIFFERENTIAL EQUATIONS, PARTIAL, INITIAL-VALUE  
PROBLEMS

INJECTION  
583

SYSTEMS  
7054

INLETS  
1100 1104 2624 5323 9757

INSTRUMENT ENGINEERING  
721 1019 1170 1171 1174 2154 2156 2250 2251 2254  
2949 2976 3372 3376 4249 4250 4477 4755 4756 5134  
5685 5834 6844 6973 7193 7203 8238 8240 8259 8871  
9131 9132 9559

ACOUSTICAL  
6528 6529

ELECTRICAL  
302 1169 1176 1177 1743 2512 3230 3375 3612 4462  
5193 5447 5448 6049 6357 6360 6364 6365 6975 7194  
8674 9253 9560 9614

ELECTRONIC  
1933 2509 4320 4468 4474 4475 4476 8448

HYDRAULIC  
4463

MECHANICAL  
2558 2559 2560 6050 6196 7008 9461

OPTICAL  
2801 4917 9252

INSULATING MATERIALS  
3712 4501 5540

INTEGRAL EQUATIONS  
16 17 168 169 777 778 1461 1462 1594 1828  
2201 2431 3004 3918 4175 4838 4852 5764 5765 5769  
5779 6384 6603 6617 6618 6619 6633 7154 7477 7493  
7494 7495 7498 7499 7632 7646 8322 8323 8816 8824  
9051 9182 9330

\*SEE ALSO\*--- BOUNDARY LAYER, INTEGRAL METHODS

INTEGRAL TRANSFORMS--- \*SEE\* OPERATIONAL METHODS

INTEGRATION--- \*SEE\* NUMERICAL ANALYSIS, INTEGRATION

INTEGRO-DIFFERENTIAL EQUATIONS

1671 2185 3545 4830 5771 6620 9925

\*SEE ALSO\*--- BOUNDARY LAYER, INTEGRAL METHODS

INTERFACE PHENOMENA

1904 2746 4055 4056 5681 7428

FLUID BOUNDARIES

3848 5686 5688 5692 6340 8849

GAS-SOLID

1948 3537 5371

JET BOUNDARIES

423 2443

LIQUID-LIQUID

1794

LIQUID-SOLID

2100 4758 5605 6226 6526

LIQUID-VAPOR

2716 2723 7477

INTERFERENCE AND COUPLING--- \*SEE\* AERODYNAMIC INTERFERENCE

INTERFERENCE FITS

5201 6200 8645

INTERNAL COMBUSTION ENGINES--- \*SEE\* ENGINES

INTERNAL FRICTION--- \*SEE\* DAMPING CAPACITY OF MATERIALS

INTERPLANETARY PROBES

1328 2088 6500 8136

PLANETARY ENTRY

2089 5619

PLANETARY SATELLITES

9012

INTERPOLATION--- \*SEE\* NUMERICAL ANALYSIS, INTERPOLATION

INVARIANT IMBEDDING--- \*SEE\* OPTIMAL AUTOMATIC CONTROL, INVARIANT IMBEDDING AND QUASILINEARIZATION

ION

269 7858

ACCELERATOR

3782

IONIC PROPULSION--- \*SEE\* SPACE PROPULSION, IONIC

IONIZATION

1855 2639 4493

IRON

2476 3150 5172 5177 5903 8436

IRREVERSIBLE THERMODYNAMICS--- \*SEE\* THERMODYNAMICS, IRREVERSIBLE

IRRIGATION

STRUCTURES

6234

\*SEE ALSO\*--- CHANNELS, OPEN, FLOW

ITERATION--- \*SEE\* NUMERICAL ANALYSIS, ITERATION

## J

JET ENGINES

667 2413 4618 4660 4661 4700 5536 8752

ARCJET

2838

RAMJET

2836 8111

SCRAMJET

7307

TURBOJET

662 1143 1780 2837 5555 6444 8172 9920

TURBOPROP

6370

\*SEE ALSO\*--- COMBUSTORS

JET FLAPS

2689 3560 5405 6324 8016 9744 9761

JET PROPULSION

492 8975

JET PUMPS

494 495 3604 4385 8753

JETS

423 660 2253 3975 4384 5423 7970 7990 8169 8184  
8787 9629 9682 9685 9735

COANDA EFFECT

2610 2611 4365 8752 8753 9636

COMPRESSIBLE FLOW

513 5348 6277 7963 7965

COMPRESSIBLE FLOW, EJECTORS

1822 4623

COMPRESSIBLE FLOW, NOZZLES

417 418 422 1118 2635 2836 2837 3524 4623 5349

IMPACT

3466 4336 5280 7823

IMPINGEMENT

1848 3480 4509 5285 5355 5519 7066 7114 7367 7945

INCOMPRESSIBLE FLOW

1095 2601 3480 3489 3508 4362 5317 6252 6255 7064  
7410 8769

INCOMPRESSIBLE FLOW, HYDRAULIC

1819 5307 7823

INCOMPRESSIBLE FLOW, LAMINAR

393 395 396 1820 1821 1823 2614 4312 4363 4468  
5311 6256 7962 8767 9646

INCOMPRESSIBLE FLOW, NOZZLES

9635

INCOMPRESSIBLE FLOW, OSCILLATIONS

3586

INCOMPRESSIBLE FLOW, SWIRLING

2601 2605 5309 5311 7082

INCOMPRESSIBLE FLOW, TURBULENT

394 461 462 1821 2680 4312 5310 7077 7078 7961  
9093

## JETS \*CONTINUED\*

## PLASMA

616 619 1288 1305 2064 2852 2862 2878 2879 4522  
4602 5592 5601 8138 9005 9890

## WALL

394 395 1119 1821 3504 4363 4365 5306 6256 7079  
7080 7081 7234 7961 8101 9647 9710

\*SEE ALSO\*--- ARCS, JETS -- FLOW MEASUREMENT,  
ORIFICES -- MIXING, JETS -- NOZZLES

## JET STREAMS--- \*SEE\* METEOROLOGY, JET STREAMS

## JOINTS AND JOINING PROCESSES

208 1054 1055 4267 6211 7912

## BOLTED

1050 1051 1052 1053 2571 6201 6202 6204 7837 7914

## BRAZED AND SOLDERED

9612

## GLUED

4243 6143 6212 9616

## NAILED

1057

## PINNED

5201

## RIVETED

280 287 6205 7844

## TESTING

7913 8672

## TIMBER CONNECTORS

6203

## WELDED

2566 2567 2568 2569 2570 6205 7917 7918 7919 9614  
9615

\*SEE ALSO\*--- ADHESIVES -- FASTENERS -- FATIGUE,  
JOINTS

## JOULE-THOMPSON EFFECT

5465 9270

## K

## KILNS--- \*SEE\* FURNACES

## KINEMATICS

340 1767 1786 2562 3091 3099 3256 3416 3420 3422  
3431 4001 4128 4308 4309 5258 5259 5260 5261 7022  
7023 8710 8726 9269 9608 9609

## ACCELERATION

6194 8714

## LINKAGES

339 347 348 1763 1764 1782 1783 1784 1785 1788  
1789 2555 2561 2563 2564 3090 3426 3427 3428 3430  
4295 4297 4304 4305 4306 6195 6197 6198 7011 7019  
7020 7021 8711 8712 8713 8715 8716 8717 8718 8719  
8720 8722 9601 9602 9603 9604 9605 9606 9607

## RIGID BODY

2288 3089 3428 5255 6693

## SYNTHESIS

196 339 347 349 1763 1764 1765 1766 1784 1787  
1789 2555 4295 4296 4297 4298 5252 5253 5254 6198  
6199 7019 8713 8715 8717 8719 8723 9604

## KINEMATICS \*CONTINUED\*

## VELOCITY

1765 3089 6194 8718

\*SEE ALSO\*--- BIOMECHANICS, LOCOMOTION -- GEARS,  
KINEMATICS

## KINETIC THEORY

4391 4393 4394 5365 5499 6281 7122 8096 8789  
JUNE FEATURE ARTICLE

## COLLISION MODELS

521 3535 7576

## GASES

1187 1188 1946 3529 3530 5460 6372 6377 7209 9701

## IONIZED GASES

5595 5597 7326 8117 8118 8130 9006

## PLASMAS

1182 1275 1285 2859 2868 3776 4597 5581 5587 6471  
6472 7315 7322 7323 7325 7327 8129 8133 8135 8142  
9008 9010 9013 9878

## RELATIVISTIC

1099 8773 8790

\*SEE ALSO\*--- RAREFIED GASES

## KNOCKING

5542 5543 5544 5545

## L

## LAMINAR FLAME--- \*SEE\* FLAME, LAMINAR

## LAMINAR FLOW

2719 3366 6258 6552

## INCOMPRESSIBLE

380 400 2576 2606 3503 3511 4314 4357 5269 5295  
5304 6250 7071 7076 7960 8761 8878 9004 9637 9640

\*SEE ALSO\*--- CAPILLARY FLOW

## LAMINATES

2482 6155 8646 9561

\*SEE ALSO\*--- COMPOSITE MATERIALS

## LANDING AND TAKEOFF

## AERODYNAMIC ASPECTS

4620 4621

## STRUCTURAL ASPECTS

200 4620 4621 7341

## LANDING GEARS

200 4620 6194

## LANDSLIDES--- \*SEE\* SOIL MECHANICS

## LAPPING--- \*SEE\* GRINDING

## LASERS

295 1691 2506 2687 2688 3270 3361 3362 3691 4456  
5180 5196 5210 5733 6026 7408 7474 7853 8568 8658  
8659 8878 9533 9539 9614

\*SEE ALSO\*--- HOLOGRAPHY

## LEAD

1739 3867

## LEARNING SYSTEMS

68 1551 1553 3087 3998 3999 4894 6641 7567 9266

## AUTOMATA

2255 2276 7526

## CODING

791 1509

## CONVERGENCE

4000 4893

## ON LINE METHODS

2236

## SELF ORGANIZING SYSTEMS

3067 4000

\*SEE ALSO\*--- PATTERN RECOGNITION

LIFT AND DRAG--- \*SEE\* DRAG AND LIFT

## LIMIT DESIGN

7003

## BEAMS

1602 2334 4260 6687 8688

## PLATES

4970

## SHELLS

3407 4979 5223

\*SEE ALSO\*--- REINFORCED CONCRETE, DESIGN, LIMIT --  
STRUCTURES, DESIGN, LIMIT

## LINEAR AND NONLINEAR PROGRAMMING

4 767 840 1528 2194 2530 3015 3074 3901 3993  
4842 4845 4850 4855 5787 5814 7514 7559 9174

\*SEE ALSO\*--- DYNAMIC PROGRAMMING

## LINKAGES--- \*SEE\* KINEMATICS, LINKAGES

## LIQUID FILM

1243 2716 2717 2723 2947 2948 4540 5434 5512 5520

## COOLING

2816 7961

## FLOW

1240 1905 5426 6430 7951 8084 8929

\*SEE ALSO\*--- WAVES, LIQUID FILMS

## LIQUID METALS

743 1739 2875 3317 3344 3684 3685 4056 4690 4693  
4773 9062

## LIQUID SLOSHING

1158 1912 4433 5432 6344 6346 8839 8846 9781

## LOCOMOTIVES

5836

\*SEE ALSO\*--- VEHICLES, LAND

## LOW TEMPERATURE PROPERTIES OF MATERIALS

3151 7655 8436 8438

## LUBRICANTS

6193 7448 8278 8537 9144 9795 9991

## DRY FILM

733 999 1432 1435 2175 3866 3883 4800 5715 6581  
8275

## GAS

742 1430 1433 2980 3880 3881 4791 7180 7457 7458  
8288 8290 8292 9148 9149 9152 9995

## LUBRICANTS \*CONTINUED\*

## LIQUID

264 736 737 738 1428 1796 2166 2171 2172 2173  
2174 2176 3875 3882 4784 4789 4794 4795 4798 4799  
5267 5717 5720 5723 5729 6089 6090 6585 7453 7454  
7456 8283 8284 8288 8289 8293 9142 9146 9992 9994

## SOLID

733 999 1421 1432 1435 1923 2175 2177 3305 4774  
4775 4790 4800 5726 5727 6577 6581 7446 7450 8272  
9147 9795

## LUBRICATION

1426 2172 7448 8278 9144 9991

## BOUNDARY

728 729 736 738 2166 2168 4773 5717 6585 6603  
8288

## DRY FILM

733 1432 1435 2175 3423 3866 6581 8275

## ELASTO-HYDRODYNAMIC

1796 3879 4786 4787 4788 4789 4794 8287 8289

## HYDRODYNAMIC

735 737 739 742 743 744 1428 1429 1430 1431  
1434 2168 2169 2170 2171 2173 2174 2176 2979 3878  
4784 4785 4791 4792 4793 4799 5724 5725 5728 6217  
6250 6582 6584 7445 7453 7454 7457 7458 7460 8284  
8285 8286 8290 8291 8292 8293 8294 8295 9146 9148  
9150 9151 9152 9992 9994 9995

## HYDROSTATIC

1428 1430 1433 2980 3880 3881 9149 9995

## SOLID

733 1421 1432 1435 2167 2175 4775 6581 9147

\*SEE ALSO\*--- BEARINGS -- FRICTION -- GEARS --  
TURBULENCE, FRICTION REDUCING ADDITIVES -- WEAR

## LUNAR MISSIONS

1327 3932

## APOLLO MISSION

651 1345 1346 3808 9040

## CIRCUMNAVIGATION

2074 5613

## LUNAR LANDING

649 6074

## LUNAR RETURN

4648

## LUNAR SATELLITE

3809

## LUNAR SURFACE

4647 4071 9909

M

## MACHINABILITY

3314 4215

## MACHINE DESIGN

342 344 345 348 350 1682 1683 1686 1734 1767  
1768 1772 1775 1776 1777 1778 1779 1780 1781 1787  
1788 1790 1943 2218 2547 2548 2549 2551 2552 2553  
2554 2556 2557 2558 2559 2560 2561 2565 2690 3090  
3233 3415 3416 3417 3418 3420 3421 3422 3423 3424  
3425 3426 3427 3432 4217 4231 4295 4296 4297 5170  
5252 5253 5254 5255 5783 5836 6082 6187 6188 6190  
6191 6192 6198 6199 6220 6353 6936 7008 7009 7010  
7011 7012 7013 7014 7015 7016 7017 7018 7019 7020

## MACHINE DESIGN \*CONTINUED\*

7021 7022 7023 8704 8705 8706 8708 8709 8710 8711  
8712 8713 8714 8715 8716 8717 8718 8719 8720 8721  
8722 8723 8724 8725 8726 8727 8728 8729 8730 8731  
9600 9601 9602 9603 9604 9605 9606 9607

\*SEE ALSO--- BELTS -- CAMS -- CHAINS --  
CLUTCHES -- COUPLINGS -- KINEMATICS.  
LINKAGES -- SCREWS -- SEALS -- SPRINGS

## MACHINE TOOLS--- \*SEE\* TOOLS

MAGNESIUM AND MAGNESIUM ALLOYS  
892

## MAGNETO-FLUID-DYNAMICS

517 743 744 1434 2170 2839 2840 2979 3540 3856  
4791 5586 6584 6617 7435 7968 8252 8253 8254 8256  
8295 8371

## AERODYNAMIC APPLICATIONS

616 628 633 1288 1290 1305 2050 3784 3787 4604  
4613 7334 8137 8138 8999 9015 9876

## CHANNEL FLOWS, COMPRESSIBLE

595 596 599 629 1267 1269 1277 1289 2028 2847  
2852 3756 3773 4582 4584 4585 4598 4602 5558 5574  
5575 6459 7309 8985 8986

## CHANNEL FLOWS, INCOMPRESSIBLE

619 1266 1931 2029 2032 2845 3757 3758 3783 3791  
4581 4583 4586 5559 5599 6454 6455 6457 6458 6460  
6461 6462 6463 7311 8151 8987 8989 8990 9004 9861  
9866

## CHARGED PARTICLE, CYCLOTRON RESONANCE

2865 2866 3782 6470 7330 8192

## DIFFUSION IN PLASMAS

1270 1283 2048 2858 2859 5582 5588

## ENERGY CONVERSION

601 631 632 1291 1306 1307 1308 1935 2058 2059  
2871 2872 2873 2874 3771 3785 3792 3793 3794 3795  
3796 3797 4596 4611 4612 5561 5565 5593 5594 6477  
7320 7333 8148 8150 8156 8157 8888 9016 9017 9018  
9820 9883 9886 9887

## EXPERIMENTAL METHODS

447 615 634 1309 1311 1312 1313 1316 1935 2062  
2063 2064 2876 2877 2878 2879 2880 2882 2883 3772  
3775 4614 5592 5601 6480 7316 7321 7324 8122 8126  
8149 8158 8159 9019 9888

## HEAT TRANSFER

623 2052 2856 3774 3786 4601 4603 5583 5584 5585  
6474 7310 7314 8114 9005 9820 9865

## INTERACTION OF PLASMAS WITH EXTERNAL MAG FIELDS

597 609 620 630 1287 1292 1293 1295 1310 2049  
2842 2861 2862 3779 3781 3789 4590 5560 5710 7329  
7331 8128 8132 8140 8141 8272 9869 9881 9882

## OBSTACLES, FLOW AROUND

594 607 608 628 1303 1304 2031 2042 2057 2843  
2863 2870 3764 3766 3788 3790 4580 4605 4609 4610  
5563 5591 5596 6456 6469 6475 6476 8113 8124 8125  
8136 8143 8155 9862 9863 9864 9884

## ROTATING FLOWS

600 614 5577 8984 8988 9875

## SHOCKS IN PLASMAS

622 624 626 627 1298 1300 2034 2054 3780 4608  
5566 5579 6473 8145 8146 8994 9870

## SHOCKS IN PLASMAS, COLLISION FREE

1301 1302 2040 2055

## SHOCKS IN PLASMAS, NORMAL

621 1299 2056 8144

## MAGNETO-FLUID-DYNAMICS \*CONTINUED\*

## SHOCK TUBES, ELECTROMAGNETIC

598 625 635 636 637 2051 2848 4472 4588 5600  
7332 8131 9014 9889

## STABILITY, CONTINUUM THEORY

610 611 612 1282 1294 1315 1904 2033 2045 3765  
3767 3768 4600 5576 7313 8127 8134 8139 8154 8758  
9873 9880

## STABILITY, KINETIC THEORY

610 1276 1279 1280 2043 2053 2854 3769 3770 4593  
5578 9001

## TURBULENCE, CONTINUUM APPROACH

1314 1821 4472 5573 6467 6468 8123 8153 8998

## TURBULENCE, KINETIC APPROACH

2041 2855 4597 7319 9002

## WAVES, ELECTROMAGNETIC

618 1178 1271 1274 1278 1286 1297 2036 2046 2860  
2864 2867 2869 3778 4589 4594 5567 5569 5570 5598  
6466 8115 8116 8119 8997 9003 9009 9867 9872

## WAVES, INTERACTION WITH BOUNDARIES

1268 1272 1904 2054 4587 7783

## WAVES, MAGNETO-FLUID-DYNAMIC

602 603 604 605 606 1273 1281 1284 2030 2035  
2038 2039 2044 3759 3760 3761 3762 3763 4591 4592  
4595 4599 5564 5568 6465 7312 8120 8249 8991 8992  
8993 8996 9868 9874

\*SEE ALSO--- ARCS -- ENERGY CONVERSION -- FLOW,  
COMPRESSIBLE, MAGNETO-FLUID-DYNAMIC -- FLOW  
MEASUREMENT, MAGNETO-FLUID-DYNAMIC -- PLASMA  
(NON-MEDICAL) -- PUMPS, MAGNETO-FLUID-DYNAMIC --  
SPACE PROPULSION, PLASMA

MAGNETO-HYDRO-DYNAMICS--- \*SEE\*  
MAGNETO-FLUID-DYNAMICS

## MAGNETOSTRICTION

6975

\*SEE ALSO--- VIBRATION, MAGNETOSTRICTION

## MAN-MACHINE SYSTEMS

749 1436 1550 2244 2981 2982 3429 3885 3892 3896  
3899 4806 5741 5743 5744 5746 6591 6672 7529 8297  
9168 9999

\*SEE ALSO--- BIOCONTROL -- HUMAN ENGINEERING

## MANOMETERS

1173 2739 3611 3612

## MARINE ENGINEERING

2586 6967 7843 8903 9590

## MOORING

8265

## SHIP DESIGN

1396 4288 5702 5707 6354 6984 9589

## SHIP GUIDANCE

3862 5705 5706

## SHIP HYDRODYNAMICS

1406 1411 1412 2157 5701 5702 5706 5707 7440 7442  
7444 7445 8260 8262 8263 8264 8269 8273 9136 9138  
9139 9141

## SHIP HULLS

1002 1407 1414 2411 2412 2545 4286 4287 4289 4290  
5239 6018 6099 6185 6186 6853 8547

## SHIP MODEL EXPERIMENTS

1409 3861 7441 8261 8273 9137



## MARINE ENGINEERING \*CONTINUED\*

## SHIP MOTION

2720 3247 3863 5090 5703 6347 7445  
FEBRUARY FEATURE ARTICLE

## SHIP MOTION, SEAS

1411 1414 5707

## SHIP MOTIONS, INLAND WATERWAYS

1413

## SHIP PROPULSION

492 5701 5709 9140 9141

## SHIP RESISTANCE

1408 1899 1903 5700 7441 7442 7443 7444 8261 9137  
9138 9143

## SHIP SLAMMING

975 2158 5703 8266 8267

## SHIP STABILITY

2159 3864 5705

## SHIP TESTS

1410 1419 7907 8273 9143 9588

## SHIP WAVES

1899 1903 1907 2157 3860 5700 5701 5704 6332 7169  
7440 7442 8260 9136 9137 9138

\*SEE ALSO--- HYDROELASTICITY -- HYDROFOILS --  
IMPACT, SHIPHULLS -- PROPELLERS, MARINE -- SHAFTS --  
STRUCTURES, SHIP -- VEHICLES, AMPHIBIOUS --  
VIBRATION, SHIP HULLS

## MARINE PROPELLERS--- \*SEE\* PROPELLERS, MARINE

## MASS TRANSFER

397 539 570 571 572 573 574 575 576 699  
1240 1249 1251 1986 1987 1996 1998 1999 2612 2657  
2798 2810 3711 3716 3717 4553 4557 4899 5520 6427  
6572 6643 7228 7245 7283 7284 8040 8079 8097 8099  
8904 8914 8930 8945 9811 9833 9840

## DIFFUSION

562 1252 1959 2001 2002 3656 4517 4518 5522 6382  
6385 6426 6430 6554 6573 7223 7263 7275 7285 8046  
8094 8098 8100 8104 8268 8906 8926 8934 8937 8944  
8946 9839 9841  
JULY FEATURE ARTICLE

## EVAPORATION

562 1250 2795 2811 3713 6426 7359 8095 8098 8100  
8929 8930 8942 8943 9834

## FORCED CONVECTION

569 1250 1253 1254 2682 2808 2809 2811 2813 2816  
3710 3718 4552 4555 4556 5517 5518 5519 6425 6428  
6430 7285 8066 8087 9841

## FREE CONVECTION

2781 2783 3682 3709 7285 7288  
JULY FEATURE ARTICLE

## INJECTION

3546 4398 5391 5523 5524 7286 7288 8060 8101 8102  
8103 8947 9709 9713

## SWEAT COOLING

1866 3720 4555 5523 5524 6424 6428 7286 8048

\*SEE ALSO--- ABLATION -- DIFFUSION -- DRYING --  
HEAT TRANSFER, EVAPORATION -- MIXING --  
LIQUID FILM, COOLING

## MATERIAL TEST TECHNIQUES

309 310 1020 1022 1023 1375 1376 3131 3325 3348  
3350 4719 6097 6111 6586 6951 6968 6969 6970 6973  
6974 7854 7858 8661 8667 8668 8669 8670 8672 9549  
9555

## MATERIAL TEST TECHNIQUES \*CONTINUED\*

## BENDING

1025

## BIAXIAL

304

## COMPRESSION

1029 2514 3374 3378 3382 6939 7829

## DYNAMIC

1026 3267 3380 3381 6148 6149 6150 6948 7840 7856  
9552 9553 9554

## FRACTURE TOUGHNESS

1001 4247 4248 6932 6938

## HARDNESS

308 1750 2327 8670

## HIGH PRESSURE

1706 2518 6153 6935

## HIGH STRAIN RATE

2461

## HIGH TEMPERATURE

2517 5654 7400

## HYSTERESIS

6092 6093

## LOW TEMPERATURE

1030 7400 7401

## MACHINES

731 2515 2516 3870 3871 5176 6142 8669

## NONDESTRUCTIVE

1028 1031 1032 1415 1593 2496 2497 2519 2520 3343  
3385 3386 4251 4252 4253 6114 6117 6154 6155 6156  
6936 6953 7859 7860 7861 7862 7863 7864 8629 8671  
8673 9516 9556 9558 9559

## NOTCH

2483 2486 3326 5695 6737 7857 8431 9520

## SHEAR

303 305 306 3377 6123

## TENSION

2495 3373 5903 6141 6146

## TORSION

5257 6143 6144

\*SEE ALSO--- CORROSION -- CREEP -- DAMPING  
CAPACITY OF MATERIALS -- ELASTIC CONSTANTS OF  
MATERIALS -- FATIGUE, EXPERIMENTAL METHODS --  
FRACTURE -- IMPACT, TESTS OF MATERIALS --  
METALLOGRAPHY -- NONDESTRUCTIVE TEST TECHNIQUES --  
TESTING -- ULTRASONICS, TESTING -- X-RAY  
TECHNIQUES

## MATERIALS, PROPERTIES--- \*SEE\* UNDER MODIFIERS

## MATHEMATICAL METHODS--- \*SEE\* UNDER MODIFIERS

## MATRIX METHODS

1 3 4 5 765 1451 1763 1767 2193 2194  
2992 2993 3901 4118 4138 4415 4819 4821 4822 4824  
4852 5763 6604 6640 6643 6826 7547 7600 7669 7681  
7867 7870 7871 8298 8311 8325 8472 8681 9173 9183  
9214 9215 9216 9217 9218 9337

## DETERMINANTS

5083 7479

## EIGENVALUES

35 1482 1659 3928 5841 6602 6613 6631 6636 7483  
7509 7512 8160 8336 9222

## MATRIX METHODS \*CONTINUED\*

## INVERSION

1474 6604 7478 9223

## LINEAR EQUATIONS

2994 3016 3017 3091 3931 3933 7477 8333 8334

\*SEE ALSO\*--- NUMERICAL ANALYSIS -- STRUCTURES,  
MATRIX METHODS -- VECTOR AND TENSOR METHODS

## MEASUREMENT METHODS--- \*SEE\* UNDER MODIFIER

## MECHANISMS--- \*SEE\* MACHINE DESIGN

## MELTING

7264

## MEMBRANES

1622 2401 4964 5990 5991 6050 7763 8300 8434 8531  
8532 9023

\*SEE ALSO\*--- VIBRATION, MEMBRANE

## MENISCUS

5299 8551 8848

## METAL FORMING--- \*SEE\* FORMING, METAL

## METALLOGRAPHY

1607

## METALLURGY

1720 2492 2493 2494 2495 2496 2497 2949 4213 5169  
6111 6112 6121 6926 6927 6928 6929 6930 6931 6932  
7855 7915 8619 9513 9515 9516 9522 9526 9528 9552  
9555 9556 9610 9613

## POWDER

4776 5726 5727

## METEOROLOGY

719 720 2800 3383 8250 8259 9126

## APPLIED

2966 2976 4761 4764 6561 7429 7432 8246 8251 9134  
9979

## ATMOSPHERE

468 1229 1402 1979 2151 3851 5681 6575 7433 7435  
9067 9127 9129 9986 9988

## CLOUD PHYSICS

2971 2975 3852 4359 4454 4771 6566 6571 6573 6576  
7439 9128 9130 9989

## DYNAMICS, CIRCULATION AND VORTICITY

545 2604 4770 5393 6567 9983

## DYNAMICS, EQUATIONS OF MOTION

2974 4765 5698 9985

## DYNAMICS, KINEMATICS

718

## DYNAMICS, NUMERICAL METHODS

716 717 1401 2145 2150 3851 3852 4762 5695 5698  
8255 9125 9128 9130

## DYNAMICS, PERTURBATION THEORY

5696 6569 8249 9129 9985

## DYNAMICS, PRESSURE CHANGE MECHANISMS

1403 9980

## EVAPORATION

2155 2963 3854 8229 8246

## GENERAL CIRCULATION

4520 4763 6565 7433 8908 9125

## METEOROLOGY \*CONTINUED\*

## HEAT TRANSFER

553 1405 1986 2149 2151 2152 2153 2975 3689 3690  
3693 3855 4520 4531 5695 7239 7254 8080 9127

## JET STREAMS

8838 9983

## MEASUREMENTS

1403 2148 2149 2155 2156 2805 2973 2976 2977 3858  
4766 4768 4771 5699 6576 7439 8248 8257 8258 9133  
9135 9984 9990

## MICROMETEOROLOGY

1395 2144 2147 2156 2652 2977 3848 3854 3855 3858  
4761 4766 4768 5686 5696 5697 6568 6570 7429 7430  
7437 8251 9134

## PHYSICAL

2153 4767 5771 7434 7435 7436 7438 9988

## PLANETARY ATMOSPHERES

466 2788

## ROCKETS AND SATELLITES

1402 3859 6567 7431 9990

## SYNOPTIC, ANALYSIS AND FORECASTING

718 4763 4767 6574 7431 7434 7437 8255 9987

## THERMODYNAMICS

2152 4770 6566 6574

## TURBULENCE

2145 2146 2147 2148 2784 2972 2973 3555 4764 5403  
5697 6570 7430 7432 7438 8007 8248 8257 9025 9133  
9135 9984 9986 9989

## UPPER ATMOSPHERE

2645 3859 4749 5699 7436 8249 8252 8258 9982

## WIND PRESSURE

33 1049 2065 3573 5606 5608

\*SEE ALSO\*--- ARTIFICIAL SATELLITES, WEATHER  
SATELLITES -- ASTROPHYSICS -- DIFFUSION,  
ATMOSPHERIC -- HYDROLOGY -- ICING -- OCEANOGRAPHYMETHOD OF CHARACTERISTICS--- \*SEE\* NUMERICAL  
ANALYSIS, CHARACTERISTIC METHODS

## MICROMERITICS

386 687 1380 1468 2128 2951 4724 8211 9093

\*SEE ALSO\*--- AEROSOLS -- BUBBLE DYNAMICS --  
CYCLONES -- DROPS -- DUST TRANSPORT --  
GRANULAR MEDIA -- PARTICLES -- POROUS MEDIA --  
SEDIMENTATION -- SEDIMENT TRANSPORT -- SPRAYS

## MILLING

268 2470 3309 4216 6085 6086 6087 6922

## MINES

988 3293 3300 5144 8601

## MISSILES

6014 6504 7338 9478 9762

\*SEE ALSO\*--- GUIDANCE SYSTEMS, MISSILE --  
PERFORMANCE, MISSILE -- ROCKETS --  
SPACE NAVIGATION AND GUIDANCE -- SPACE POWER --  
SPACE PROPULSION -- SPACE VEHICLE DESIGN --  
SPACE VEHICLE STABILIZATION -- STRUCTURES,  
MISSILE -- TESTING -- VIBRATION, MISSILES AND  
ROCKETS

## MIXING

576 4358 6427 6429 8776

## JETS

419 1847 1850 4382 4383 5324 5353 5354 7078 7116

## MIXING \*CONTINUED\*

## JETS \*CONTINUED\*

8786 9646 9684 9688 9693

## LAMINAR

2582 6260 8953 9646

## SOLIDS

688 7403

## TURBULENT

1264 1851 2875 3493 3554 4345 7078 7149

\*SEE ALSO\*--- MASS TRANSFER

## MIXTURES

1250 1951 6357 6366 6424 7173 9960

## GAS

413 426 522 1188 2013 2472 3653

## LIQUID

6215

## MODEL STUDIES

350 493 4144 5137 5998 6852 8551 9401 9445 9960

## COMBUSTION

5509

## FLUID MECHANICS

1140 1805 2968 2972 3475 3476 4770 5287 5303 6245  
6555 6558 6559 6562 6565 6566 6568 7338 7433 8166  
8173 8247 8250 9978 9980

## HEAT TRANSFER

1994 3656 4770

## SOLID MECHANICS

271 290 995 1011 3255 3281 3355 3356 3361 3411  
4007 4143 4198 4239 4240 4241 4660 4751 4756 5198  
5207 5230 5683 6556 6921 6959 6960 7426 8548 8549\*SEE ALSO\*--- MARINE ENGINEERING, SHIP MODEL  
EXPERIMENTS -- SCALE EFFECT -- STRUCTURES, MODELSMOIRE METHODS---\*SEE\* OPTICAL TECHNIQUES, MOIRE  
METHODS

MOLDING---\*SEE\* CASTING

## MOLECULAR BEAMS

2647 2648 2649 3538 3539 5372 6285

## MULTIPHASE FLOW

3533 5331 5352 7951 7989 8230 9140 9960 9963

\*SEE ALSO\*--- PIPE FLOW, MULTIPHASE

N

NAVAL ARCHITECTURE---\*SEE\* MARINE ENGINEERING

## NICKEL

877 3151 4056 5716

## NOISE

1773 2109 2912 4671 6003 8189

## ABATEMENT

666 1356 6513 6515 6516 6847 8172 8752 9057 9763

## AIRCRAFT

662 664 666 8171 9056 9920

## ARCHITECTURAL ASPECTS

4681 6513 6519 7374 8180 9055 9058 9063 9935

## NOISE \*CONTINUED\*

## BOUNDARY LAYER

8752 8810

## CAVITATION

1362 1364 4666 4692 8174 9918

## ENGINES

664 667 1354 1356 2914 4660 4661 4667 4670 4700  
6506 7184 7369 8027 9057 9920

## GENERATION

665 1354 4664 4669 4673 6512 6515 6516 7368 8166  
8169 8172 9053 9057

## MEASUREMENT

663 665 1353 1845 4665 4667 4668 4681 6506 7368  
8171 8174 8176 8195 9918 9921

## RANDOM

9453

\*SEE ALSO\*--- BOUNDARY LAYER, NOISE -- STATISTICAL  
CONTROL THEORY, NOISE

## NOMENCLATURE

8237

## NONDESTRUCTIVE TEST TECHNIQUES

277 6974 7859 7860 7861 7862 7863 8671 8672 8673  
9558 9559\*SEE ALSO\*--- MATERIAL TEST TECHNIQUES,  
NONDESTRUCTIVE -- ULTRASONICS, TESTINGNON-NEWTONIAN FLOW---\*SEE\* FLOW, COMPRESSIBLE,  
NON-NEWTONIAN -- FLOW, INCOMPRESSIBLE,  
NON-NEWTONIAN

NONLINEAR---\*SEE\* UNDER MODIFIER

## NOTCH SENSITIVITY

1598 1602 2334 2483 4968 5187 5188 5895 6737 8431  
9516

NOTCH TEST---\*SEE\* MATERIAL TEST TECHNIQUES, NOTCH

## NOZZLES

417 5352 8785 9960

## COMPRESSIBLE FLOW

424 430 1825 1845 1849 3526 3527 4381 5351 5356  
5358 5359 5361 5363 6272 6276 7091 7111 7115 7119  
7963 7988 8788 9686 9687 9689 9690 9692 9694

## INCOMPRESSIBLE FLOW

4720 6630

## STRUCTURAL ANALYSIS

7001

## STRUCTURAL TESTS

7846

## TWO-PHASE FLOW

7112 7113 7249

\*SEE ALSO\*--- FLOW MEASUREMENT, NOZZLES --  
ROCKETS, NOZZLES -- THRUST, NOZZLE --  
TURBINES AND TURBOMACHINERY, NOZZLES

## NUCLEAR DETONATIONS

## THERMAL RADIATION EFFECTS

9831

## NUCLEAR PROPULSION

1264 6361 6362 6364 9837

\*SEE ALSO\*--- FUELS, NUCLEAR

## NUCLEAR RADIATION

6145

JUNE FEATURE ARTICLE

## NUCLEAR REACTORS

593 798 1742 1966 1979 2186 2191 2246 2771 2943  
 3752 3992 4511 4883 4907 5474 5791 5792 5804 5901  
 6363 6688 7364 7887 8081 8703 8978 8980 8981 9576  
 9807 9860

\*SEE ALSO\*--- HEAT EXCHANGERS, NUCLEAR REACTORS --  
 THERMOELASTICITY

## NUMERICAL ANALYSIS

3 1491 3021 3022 3933 4750 4752 4754 4853 4903  
 5496 6560 6568 6706 6710 6750 6758 7609 7610 7689  
 7697 7701 7910 8539 8542 9115 9172 9363 9368 9380  
 9478 9654 9925 9980 9982

## CHARACTERISTIC METHODS

14 170 418 422 1179 1900 1909 2329 2333 2334  
 2338 2436 2718 4182 5894 6040 6345 6893 6899 9474  
 9769

## DIFFERENTIATION

5786 7497 9204

## HARMONIC ANALYSIS

6561 6875 7023

## INTEGRATION, GRAPHICAL

6893

## INTEGRATION, NUMERICAL

20 765 788 1263 1473 2201 3019 3020 3219 3798  
 5771 5778 5786 6194 6602 6634 6635 7468 7496 7513  
 8388 9185 9205 9208 9209 9213 9468

## INTERPOLATION

32 2247 3009 4848 5786 6602 7507 8330 8335 9176  
 9188 9190 9196 9210 9211 9226 9240

## ITERATION

14 412 1263 1521 2331 2414 2459 3931 3932 4816  
 5244 5260 6021 6043 6557 6603 6625 6893 6979 6985  
 7867 8332 9175 9196 9330

## PERTURBATION METHOD

3218 6810 8310 9183 9653

## RELAXATION METHODS

926 1806 6637 9578

\*SEE ALSO\*--- STRUCTURES, FINITE ELEMENT METHODS --  
 STRUCTURES, MOMENT DISTRIBUTION

## NUMERICAL CONTROL

828 831 3060

## OCEANOGRAPHY

545 706 711 715 1147 1363 1391 1393 1394 1395  
 1396 1397 1398 1399 1400 2800 2916 2968 2969 2970  
 2977 3455 3847 3848 3849 3850 3855 4685 4757 4758  
 4759 4760 5403 5686 5687 5688 5689 5690 5691 5692  
 5693 5771 6514 6520 6525 6558 6559 6560 6561 6562  
 6563 6564 6575 7039 7147 7428 7437 8178 8190 8195  
 8243 8244 8256 8742 9065 9066 9123 9124 9632 9981

\*SEE ALSO\*--- GRAVITY WAVES IN LIQUIDS, OCEAN --  
 HYDROLOGY -- METEOROLOGY -- SEISMOLOGY -- TIDES

OCEAN WAVES--- \*SEE\* GRAVITY WAVES IN LIQUIDS,  
 OCEAN

OFF-SHORE STRUCTURES--- \*SEE\* STRUCTURES, OFF-SHORE

OPEN CHANNELS--- \*SEE\* CHANNELS

## OPERATIONAL METHODS

58 168 765 936 1666 2436 3236 3237 3238 3919  
 4036 4119 4834 5071 5767 5768 5770 5778 5841 5879  
 5982 6028 6799 7632 7756 8044 8058 8426 8906 8915

\*SEE ALSO\*--- DIFFERENTIAL EQUATIONS, ORDINARY,  
 OPERATIONAL METHODS -- DIFFERENTIAL EQUATIONS,  
 PARTIAL, OPERATIONAL METHODS

## OPERATIONS RESEARCH

23 784 786 1469 1470 1471 2192 2196 3011 3012  
 3013 3018 3926 4846 5791 5794 6627 6628 7040 7521  
 7820 7821 8329 9202 9203

\*SEE ALSO\*--- DYNAMIC PROGRAMMING -- GAME THEORY --  
 LINEAR AND NONLINEAR PROGRAMMING -- QUEUE THEORY

## OPTICAL TECHNIQUES

296 300 301 448 513 1021 1023 1167 1226 1227  
 1744 1746 1927 1975 2687 2724 2773 3361 3363 4472  
 5289 5451 6138 6972 9095 9201 9500 9546 9741

## HIGH SPEED PHOTOGRAPHIC

1708 6896 8647 8883

## INTERFEROMETRIC

218 295 1691 1992 2577 2915 3357 3362 3615 3620  
 4157 4460 5135 6024 6137 7191 7474 7851 9934

## MOIRE METHODS

216 290 291 1740 1741 2508 2510 3364 3365 3366  
 3367 3368 3369 4242 5203 5204 5205 5206 5207 6132  
 7779 7845 8629 8653 8656 9537 9538 9539 9540 9541

## OIL FILM PHOTOGRAPHS

8945

## SCHLIEREN

1932 2110

## SHADOWGRAPHIC

2745 4700

## SMOKE TUNNEL

3506

\*SEE ALSO\*--- EXPERIMENTAL STRESS ANALYSIS,  
 OPTICAL -- HOLOGRAPHY -- PHOTOELASTICITY --  
 PHOTOPLASTICITY

## OPTIMAL AUTOMATIC CONTROL

25 55 58 800 838 839 841 848 855 1512  
 1514 1515 1516 1520 1522 1526 1529 1532 1534 2219  
 2256 3030 3073 3086 3943 3977 3979 3980 3985 3994  
 3995 3997 4862 4902 5791 5819 5821 5822 5826 6645  
 6676 6677 6681 7352 7552 7554 7557 8365 8369 8377  
 9257 9258

## BOUNDARY VALUE PROBLEMS

835 837 3018 3078 3901 3944 3982 3989 4891 6647  
 8367

## BOUNDED CONTROLS

64 833 849 1481 1511 1540 2241 2258 2261 2268  
 3984 3987 3991 4871 5828 6674 6679 7566 8363 8366  
 8372 8376

## CONTROLLABILITY AND OBSERVABILITY

3031 3048 3796 5820 6654 6656 6660 8368 8378

## DISCRETE AND SAMPLED DATA SYSTEMS

834 842 845 846 1527 2264 5823 7561 8374 8379

## DISTRIBUTED PARAMETER SYSTEMS

1535 1536 1537 2267 2268 3027 3080 4895 5811 5832  
 6685 6686 8380 8381

## OPTIMAL AUTOMATIC CONTROL \*CONTINUED\*

IDENTIFICATION  
1523 4878 7529

INVARIANT IMBEDDING AND QUASILINEARIZATION  
2226 2227 4878 5825 6682 6683

MAXIMUM PRINCIPLE  
59 60 66 1519 1520 1535 1540 2258 2263 2274  
3077 3079 3080 3915 3987 4890 4898 5785 5811 5823  
5832 6686 7556 7558 8363 8366 8367 9260 9262

MINIMUM FUEL  
2269 3079 3082 4900 6687

NONLINEAR PROGRAMMING  
840 845 1527 2261 3983 6688

PERFORMANCE  
56 1507 1542 3978 7364 7565 8364 8368

REAL TIME SOLUTION  
1524 1543 2264 6689

SENSITIVITY  
56 805 836 2257 2266 4888 4897 7555 8375

STEEPEST DESCENT  
57 1524 1543 3078 3983 3986 6687 7559

TIME OPTIMAL SYSTEMS  
65 800 832 1470 1471 1472 1537 1540 1546 2240  
2274 3976 3982 3996 4899 4900 4901 4904 5824 6691  
7566 8370 8379 9260

TIME VARYING SYSTEMS  
1525 2260 4889 4897

\*SEE ALSO\*--- AUTOMATIC CONTROL -- CONTROL  
STABILITY -- DYNAMIC PROGRAMMING -- LEARNING  
SYSTEMS -- STATISTICAL CONTROL THEORY --  
SUBOPTIMAL CONTROL -- TIME DELAY SYSTEMS --  
VARIATIONAL METHODS

ORBIT MECHANICS  
861 1554 3101 7165 7573 7574  
SEPTEMBER FEATURE ARTICLE

ORBIT DETERMINATION  
646 1336 2080 4005 5612 7571 9034 9037 9043 9272  
9904 9907

ORBIT PREDICTION  
3075 3076

TRACKING  
724

TRAJECTORY OPTIMIZATION  
1331 1332 2892 2893 2894 6499 6505 7355 9033 9764

TRANSFER ORBITS  
647 649 2087 2891 5611 6495 6496 6497 9033

\*SEE ALSO\*--- RENDEZVOUS

ORIFICES--- \*SEE\* FLOW MEASUREMENT, ORIFICES --  
FLOW, INCOMPRESSIBLE, ORIFICES

OSCILLATIONS IN FLUIDS  
1910 1911 2615 2618 2713 2714 2945 3589 4431 5298  
5437 5438 6511 6512 7177 8034 8771 9095 9652 9655  
9767 9782

AIRFOIL AND WINGS, COMPRESSIBLE FLOW  
5418 6278

AIRFOIL AND WINGS, INCOMPRESSIBLE FLOW  
4455 5406 8012 8816

## OSCILLATIONS IN FLUIDS \*CONTINUED\*

LIQUID IN A TUBE  
476 2735 4599 6588 9536

VORTEX-INDUCED  
1096

\*SEE ALSO\*--- FLUTTER -- UNSTEADY FLOW --  
VIBRATION, FLUID -- WAVES

## P

PANELS  
280 4251 9214 9215 9216 9217 9218

FLAT  
2886 3798 3799 3800 5604 7337 9023 9453 9894 9895

\*SEE ALSO\*--- FLUTTER, PANELS -- PLATES

PARACHUTES  
3566 3568 4629 6323

PARTIAL DIFFERENTIAL EQUATIONS--- \*SEE\* DIFFERENTIAL  
EQUATIONS, PARTIAL

PARTICLES  
554 557 569 1556 1557 1967 1980 1981 1982 3655  
4530 4553 4722 5521 6397 7470 8090 8103 9832

MEASUREMENTS  
697 724 2950 4733 4736 7414 7415 7416 8218 8219

PHYSICAL PROPERTIES  
1949

\*SEE ALSO\*--- DROPS -- DUST, PARTICLE SIZE  
DETERMINATION -- DUST, TRANSPORT -- DYNAMICS  
PARTICLE -- GRANULAR MEDIA -- SPRAYS

PATTERN RECOGNITION  
856 2276 2277 3998 3999 4893 8353 9170 9264

PAVEMENTS--- \*SEE\* HIGHWAY AND RUNWAY CONSTRUCTION

PENDULUMS--- \*SEE\* VIBRATION, PENDULUMS

PENETRATION

PROJECTILE  
3271 5122 6052 7796 9479

\*SEE ALSO\*--- IMPACT, PENETRATION

PERFORMANCE  
1928

AIRPLANES  
1892 2698 2888 4618 4619 4621 4622 6314 6315 6482  
7341 7342 7344 7345 8012 8829 9030 9742 9896 9897

ENGINES  
1169 4618

FLIGHT  
1882 9897

HELICOPTER  
4615 4616 8012 9898

MISSILE  
2703 7165

OPTIMIZATION  
2079 2705 7165 8829 9742 9764

ROCKET MOTOR  
8110



## PERFORMANCE \*CONTINUED\*

VEHICLES  
2020 5744 7346

\*SEE ALSO\*--- SPACE PROPULSION, PERFORMANCE

PERMAFROST  
5150

PERMEABILITY OF SOILS--- \*SEE\* SOIL MECHANICS,  
PERMEABILITY

PERTURBATION THEORY  
3 14 36 1661 2190 2200 2995 2998 3077 3086  
3218 3221 3497 3502 4125 4254 4352 4630 4847 5218  
5658 5760 6613 6614 7480 7953 8528 8561 8562

PETROLEUM DEPOSITS--- \*SEE\* RESERVOIR ENGINEERING

PHASE CHANGES  
1941 4481

PHASE LOCKED SYSTEMS--- \*SEE\* AUTOMATIC CONTROL,  
PHASE LOCKED LOOPS

PHOTOELASTICITY  
288 289 344 2502 2503 2504 2505 2507 3358 3360  
3363 4241 5198 5201 5202 5213 6124 6126 6129 6130  
6961 6962 6963 7464 7841 7843 7844 7852 8647 8649  
8650 8653 8654 9533 9534 9535 9594

DYNAMIC  
1708 3361 6128 8577 9532

MATERIALS  
5200 5208 6125

SCATTERED LIGHT  
759 5196

THREE-DIMENSIONAL  
759 3359 5197 6131 6960 7842 8648 8651 8655 9530

\*SEE ALSO\*--- STRESS AND STRAIN, ANALYSIS --  
PHOTOVISCOELASTICITY

PHOTOGRAPHY  
2951 7384 8212

HIGH SPEED  
3816 7840 9480

PHOTOPLASTICITY  
1744 2501 2506

PHOTOVISCOELASTICITY  
5199 6966 9531

PHYSICS  
69 1554 1557 4820 4913 4919 4920 5764 5844 6602  
7376 7381 7572 7587 7588 8391 9052 9068 9275 9282

PIERS  
311 333 8589

\*SEE ALSO\*--- FOUNDATIONS, PIERS

PIEZOELECTRICS  
207 232 2408 3138 3260 3273 6049 6900 7381 8305  
8572 9443 9444 9470 9932

\*SEE ALSO\*--- VIBRATION, PIEZOELECTRIC DEVICES

PILES--- \*SEE\* FOUNDATIONS, FOOTINGS

PIPE FLOW  
433 1672 1965 3660 3685 4341 4528 6286 6406 6513  
7032 7287 8008 8765 8770 8853 9437 9622 9960

CAPILLARY  
1058 1059 4321 7470 7471 7472 9052

## PIPE FLOW \*CONTINUED\*

COMPRESSIBLE  
1900 4659 7087 7974 9657

EXPERIMENTAL RESULTS  
353 1171 1443 1791 4321 7475 9162 9655 9814

FLEXIBLE WALLS  
351 753 756 757 1437 1440 5732 6588 7468 7469  
7475 8303 8304 9162 10003 10004

FRICTION LOSS  
353 357 1058 1086 3441 5266 9816

INCOMPRESSIBLE  
4344 5599 6460

INLET FLOW  
370 1058 1792 4333 4423 7069 7287 8743 8907 8938

LAMINAR  
353 357 536 1802 2575 3659 3664 4513 5302 5487  
5491 7069 8736 8905 9644 9808

LOSSES IN FITTINGS  
5274 8234

MULTIPHASE  
1819 2134 5303 5325 7032 7952 8902 9814

NONCIRCULAR PIPE  
538 1133 1215 2575 2779 2780 3460 3664 4316 4317  
5268 5302 5487 5491 6227 6392 6398 6429 7034 7953  
8061 8068 8070 8087 8938 9821

NON-STEADY  
2618 3447 3825 4317 5268 5362 7233 7468 10004

POROUS WALLS  
1814 3438 6552 6553 7073 7407 9971

ROUGHNESS AND WALL SHEAR  
1059 3441

SEDIMENT TRANSPORT  
372 373 693

SHORT TUBES  
7157

TRANSITIONAL  
2719 4321 5394 7073 8304 9655 10003

TRANSPORT OF SOLIDS  
383 694 1086 1791 2134 2681 2959 3825 3826 5303  
7406 7407 8214 8215 9098 9099 9823

TURBULENT  
353 357 1064 1133 1964 2655 2681 3559 3662 3666  
3667 4418 4419 4507 4556 4662 5266 6265 6306 6387  
6393 7152 7784 7956 8009 8055 8062 8064 8087 8304  
8613 9623 9739 9740 9825

TWO-PHASE  
384 693 1163 3661 4554 5504 5505 5507 6390 6413  
7273 7951 8087 8215 8741 8754 8755 8939 9097 9098  
9099 9816

PIPES AND TUBES  
1031 1603 3891 4245 4307 6960 6997 7346 7916 8213  
8699

PRESSURIZED  
112 3303 3304 6162

\*SEE ALSO\*--- BUCKLING, PIPES AND TUBES UNDER  
PRESSURE -- CONCRETE AND MASONRY, PIPES --  
PRESSURE VESSELS -- THERMOELASTICITY, TUBES

## PIPING SYSTEMS

361 364 1065 2211 2583 3469 4845 5273 6234 7033  
7916 8853

## PLASMA (MEDICAL)

756 757 760

## PLASMA (NON-MEDICAL)

4522 4658 6207 7259 8252 8253 8254 9820

## BEAM-PLASMA INTERACTIONS

1274 1311 9010

## DIAGNOSTICS

634 1309 1312 2062 2063 2841 2876 2877 2879 2880  
3775 4609 4614 5590 6480 9019 9888

## EXPERIMENTAL

613 615 617 627 635 1292 1295 1310 1316 2849  
2850 2881 3772 4607 6478 7317 7324 8126

## FUSION

620 2865 2866 3779 5580 6464 7318 8122 8128 8132  
8135

## GENERAL THEORY

609 1275 1285 1296 2049 2841 5560 5581 5587 6471  
7322 7327 8134 8142 9006 9013 9878

## OSCILLATIONS

614 680 2037 2046 2047 2061 2839 2851 8115 8127  
9002

## STABILITY, CONTINUUM THEORY

610 611 612 1282 1294 1315 2045 2055 3767 3768  
4600 4839 5577 7316 7317 7783 8154 8993 9880

## STABILITY, KINETIC THEORY

610 1277 1279 1280 2043 2053 2854 3769 3770 4593  
5578 7330 8129 9001

## THERMODYNAMIC PROPERTIES

626 1182 3777 4597 4607 5597 6479 7210 7315 7326  
9008 9879

## TRANSPORT PROPERTIES

1276 1283 2048 2846 2855 2858 2859 2868 2878 3776  
5180 5582 5588 5595 6472 7210 7323 8130 8133

## WAVES, ELECTROMAGNETIC, LINEAR

618 1271 1272 1278 1286 2036 2054 2217 2860 2864  
2867 2869 4589 4594 4606 5567 5569 5570 5598 6466  
7328 8116 8117 8118 8119 8139 8995 9009 9011 9867  
9872

## WAVES, ELECTROMAGNETIC, NONLINEAR

1297 1314 2849 3778 6470 8152 8997 9000 9871 9003  
9007

## WAVES, GENERATION

2111 4592 7312

## WAVES, MAGNETO-FLUID-DYNAMIC, LINEAR

602 603 604 605 606 1273 1281 2038 2044 3759  
3760 3761 3762 3763 5571 8121 8991 9868 9869

## WAVES, MAGNETO-FLUID-DYNAMIC, NONLINEAR

621 624 1284 1301 1302 2039 2040 2056 3780 4587  
5566 5568 5572 7331 8120 8996 9877

\*SEE ALSO---- ARCS -- ENERGY CONVERSION, DIRECT --  
FLAME, PLASMA -- JETS, PLASMA -- KINETIC THEORY,  
PLASMAS -- MAGNETO-FLUID-DYNAMICS -- SPACE  
PROPULSION, PLASMA -- WIND TUNNEL, PLASMA

## PLASTIC WAVES--- \*SEE\* WAVES, PLASTIC

## PLASTICITY

726 978 1601 1701 1722 1739 2478 2479 3329 3351  
4223 7878 7879 8432 8433 8663 8667 8676 8677 8685  
8686 9540 9554 9565

## PLASTICITY \*CONTINUED\*

## CONSTITUTIVE EQUATIONS

109 115 118 1606 1608 2328 2331 2336 2338 2339  
2340 3142 3269 4048 4050 4057 4971 5891 5897 6743  
6744 7644 7648 7649 8430 8434

## GEOPHYSICS

114

## MATHEMATICAL THEORY

1605 2329 2335 2336 2337 2339 4050 4057 4974 5889  
5890 6738 6739 6744 7645 7646 7826 8428 8430 8434  
9330 9331

## MATHEMATICAL THEORY, THREE-DIMENSIONAL

884 1451 3302 4969 5171 5892 5893 6738 9505

## MATHEMATICAL THEORY, TWO-DIMENSIONAL

114 116 261 884 1604 2330 2331 2332 2333 2334  
2335 2338 2459 2462 3140 3141 3306 4048 4212 4963  
4965 4968 4972 4974 5894 5895 6088 6737 6739 6914  
6917 7645 8429 9503

## MEASUREMENTS

119 120 258 882 886 891 1602 1607 1609 1744  
2334 2341 2342 3143 3145 3343 3867 3868 4053 4054  
4964 4976 4982 4983 5898 5903 6084 6736 6742 7647  
7656 8431 8437 8438 8449 9333 9334 9547

## PHYSICAL THEORY

120 257 887 1607 1611 5169 6079 7643 7644 7656  
7826 8435 8439 8442 8444 9331 9502

\*SEE ALSO---- BEAMS, PLASTIC DEFORMATION --  
BUCKLING, PLASTIC -- CONTINUUM MECHANICS,  
CONSTITUTIVE EQUATIONS -- CREEP -- CUTTING  
PROCESSES -- DISLOCATION THEORY -- DRAWING --  
DUCTILITY -- ELASTOPLASTICITY -- ENERGY METHODS --  
EXTRUDING -- LIMIT DESIGN -- PLATES, PLASTIC  
DEFORMATION -- ROLLING -- SHELLS, PLASTIC --  
SHELLS, PLASTIC DEFORMATION -- SOIL MECHANICS,  
PLASTICITY -- STRAIN HARDENING -- STRESS AND  
STRAIN, RESIDUAL -- SUPERPLASTICS --  
THERMOPLASTICITY -- TORSION, PLASTIC --  
VARIATIONAL METHODS, PLASTICITY --  
VISCOELASTICITY -- VISCOPLASTICITY

## PLASTICS

875 878 1421 2164 2167 2177 3137 3145 4245 5190  
6732 6969 7714 7832 8624 9167

## REINFORCED

109 755 1020 1052 2324 2482 3137 3386 5900 6119  
6735 7628 7629 7649

## PLATES

151 153 154 290 331 908 1571 1629 2356 2372  
2477 3109 3165 3169 4116 5027 5211 5919 5955 6129  
6158 6160 6161 6751 6763 6989 7882 7886 8411 8462  
8463 8485 9286 9287 9343 9347 9361 9371 9520 9541

## ANISOTROPIC

101 143 898 1588 1604 1640 2367 2407 3272 3273  
4152 4265 4972 5003 5025 5925 7712 7713 8475 8547  
9369 9423

## BENDING

130 897 900 1623 1627 1630 1642 1740 2357 2358  
2369 3020 3166 3167 3180 3181 3186 3187 3236 4067  
4068 4069 4070 4071 4088 4091 4999 5000 5001 5002  
5023 5206 5921 5923 5924 5927 5928 5955 6716 6717  
6758 6760 6761 6815 6829 6832 7673 7674 7675 7677  
7679 7681 7685 7686 7687 7688 7689 7690 7691 7711  
7721 7722 7867 8465 8466 8467 8468 8479 8482 8489  
8539 9344 9348 9349 9350 9380

## BENDING, ANISOTROPIC

1596

## BENDING, ELASTIC

152 780 871 1626 2360 8541

## PLATES \*CONTINUED\*

## BENDING, PLASTIC

149 1628 5029 5926 5929 5956 6773

## BENDING, STIFFENED

187 943 1643 1644 1645 1647 2368 2377 3183 4090  
4992 8476 8483

## CIRCULAR

155 899 1596 1624 2359 2406 3235 3237 3238 4131  
4181 4996 4997 4998 5031 5852 5922 5930 5931 6762  
6764 6776 6815 6831 7676 7692 7723 7768 8430 8460  
8464 8478 8484 8488 8492 8493 9345 9346 9378

## COMBINED LOADS

2185

## CREEP

1596 5882 9321 9324

## DYNAMIC LOADING

173 1697 1698 1762 2885 3239 3271 3272 3273 3800  
4008 4131 5080 5082 5118 5119 5122 5607 5982 6001  
6002 6004 6006 6011 6823 6831 6873 6884 7777 7826  
8539 8541 8542 8543 8569 8570 9401 9417 9418 9419  
9420 9421 9422 9894

## FINITE DEFORMATIONS

7719 7720

## FOLDED

6159 6184 9562

## NONHOMOGENEOUS

4130 6828 8646

## NONLINEAR

11 7767 8569

## PERFORATED

287 3271 4289 5197 6185

## PLASTIC DEFORMATION

117 4972 5891 5894 8430 8683

## REINFORCED CONCRETE

7874

## STIFFENED

5239 8542

## TENSION

2405

## THICK

7489

## WEAKENED

5882 5886 7628 7638 9321

\*SEE ALSO\*--- BUCKLING, PLATES -- DISKS -- ELASTIC  
FOUNDATIONS, PLATES -- ENERGY METHODS -- FATIGUE,  
PLATES -- IMPACT, PLATES -- LIMIT DESIGN, PLATES --  
NUMERICAL ANALYSIS, RELAXATION METHODS -- PANELS--  
SANDWICH CONSTRUCTION -- STRUCTURES, FINITE  
ELEMENT METHODS -- THERMOELASTICITY, PLATES --  
TORSION, PLATES -- VIBRATION, PLATES

POISEUILLE FLOW--- \*SEE\* FLOW, INCOMPRESSIBLE,  
POISEUILLE

## POLISHING

267

## POLLUTION

## AIR

4735 4761 4768 5697 8213 8251 9134

## POLYMERS

106 346 701 879 881 887 949 1017 1600 1707  
1728 1795 1797 2007 2164 2167 2177 3135 3137 3138  
3139 3439 4038 4039 4046 4051 4057 4774 4775 4959  
4961 5101 5887 6050 6052 6730 6733 6832 6951 7028  
7629 7632 7635 8277 8289 8423 8577 9323

## DILUTE SOLUTIONS

356 357 1095 1794 2325 2580 3446 5266 6223 7030  
7930 9621

## \*SEE ALSO\*--- PLASTICS

## PORE PRESSURE

1710 2445 2451 6054

## POROUS MEDIA

15 3711 3714 3717 5476 5673 6572 9967

## CHARACTERISTICS

2474 2768 4103 4973 9839

## COMPRESSIBLE FLUID FLOW

2138 4740 6546 6549 8229 9106

## ELASTICITY

3842

## FLUIDIZED BEDS

3843 5674 6222 8206 8217

## INCOMPRESSIBLE FLUID FLOW

704 1087 1857 2136 2140 2957 6217 6551 7923 9104

## TWO-PHASE FLUID FLOW

2141 2956 3838 3841 4744 5672 6548 7923 9973

\*SEE ALSO\*--- GRANULAR MEDIA,  
FLOW THROUGH -- HEAT TRANSFER, POROUS MEDIA --  
HYDROLOGY, GROUNDWATER -- MICROMERITICS --  
SEEPAGE -- SOIL MECHANICS, PERMEABILITY

## POTENTIAL THEORY

1458 1459 1929 2955 3097 3836 5668 7571 7749

## FLUID FLOW

1809 3507 4347 4350 4362 4367 5283 5414 7059 7060  
7061 7943 9636

## FLUID FLOW, AXISYMMETRIC

3481 3491 4346 7941

## FLUID FLOW, PLANE

498 3481 3489 4737 5444 7189

## FLUID FLOW, WITH SINGULARITIES

1914 3603 4450 5288 7440 7942

## HEAT TRANSFER

6381 9774

## POWDERS

9972

## SOLID MECHANICS

2284 5181

## POWER PLANTS

824 3058 3068 3973 3993 5509 5510 5511 6228 8092  
9838

## HYDROELECTRIC

825 2584 3449 3454

## NUCLEAR

593 3753 4578 4883 9858

## STEAM

48 823 1543 3968 4484 4485 4542 5454 5503 5534  
6245 6371 6427 6448 7305 8888 8970

## POWER PLANTS \*CONTINUED\*

\*SEE ALSO\*--- FLUID POWER

## PRECIPITATION--- \*SEE\* HYDROLOGY, RAINFALL

## PRESSURE MEASUREMENT

505 507 979 1929 2547 2924 3611 3612 3613 3968  
3969 6376 7467 8604 9162

## GAGES

1928 3609 3610 3615

## TRANSDUCERS

502 503 504 506 1177 3614 4183 4809 5447 5742  
6360 7190 8876\*SEE ALSO\*--- FLOW MEASUREMENT -- MANOMETERS --  
PIEZOELECTRICS -- PRESTON TUBE -- TRANSDUCERS

## PRESSURE VESSELS

1732 4227 4524 5188 6145 8631

## ANALYSIS

882 2544 3407 4279 4280 6999 7000 7001 7898 9585

## DESIGN

1046 4281 9523

## TESTING

882 2480 2566 6110

\*SEE ALSO\*--- BOILERS -- HIGH PRESSURE --  
PIPES AND TUBES, PRESSURIZED

## PRESSURE WAVES---\*SEE\* WAVES, COMPRESSIONAL

## PRESTON TUBE

7161

## PRESTRESSED CONCRETE

322 1598 1599 2536 2537 3399 4267 5233 5234 5242  
6140 6175 6176 6992 7759 7882 7887 8692 9575 9576PRESTRESSED STRUCTURES--- \*SEE\* STRUCTURES,  
PRESTRESSED

## PROBABILITY THEORY

1 20 26 766 782 2193 3010 3094 3389 3901  
3922 4840 5772 6107 6164 7504 7505 7506 8307 8921  
9192 9198 9200  
AUGUST FEATURE ARTICLE

## HIT

9191

\*SEE ALSO\*--- ERROR, THEORY

## PROJECTILES

4657 5130 6052 7796 8576 9469 9478

\*SEE ALSO\*--- MISSILES -- PENETRATION, PROJECTILE

## PROPAGATION---\*SEE\* UNDER MODIFIER

## PROPELLANTS

3748

## SOLID

106 2499 2817 2828 2832 3733 3749 4570 5199 5552  
5888 6726 7306 8419 8653 9327\*SEE ALSO\*--- COMBUSTION -- HYDROCARBONS --  
IGNITION -- SPACE VEHICLE PROPULSION

## PROPELLERS

3603 7188

## AIRPLANES

6316

## PROPELLERS \*CONTINUED\*

## DUCTED

7063 8028 8270

## MARINE

496 499 1166 3606 4449 4450 6516 7187 7188 9054

\*SEE ALSO\*--- CAVITATION, PROPELLERS

## PROPULSION---\*SEE\* UNDER MODIFIERS

## PUMPS

527 1161 1163 1915 2211 2725 2734 2735 3469 7123  
8737 9960

## AXIAL

489 498 1917 5443

## CENTRIFUGAL

485 486 2731 3354 4432 4446 4448 5444

## FLOW CHARACTERISTICS

487 489 2732 3600 3601 4446 6356 7179 7185 9793

## MAGNETO-FLUID-DYNAMIC

2060 2875

## MIXED

4443

## POSITIVE DISPLACEMENT

5445

\*SEE ALSO\*--- CAVITATION, PUMPS -- EJECTORS --  
JET PUMPS

## Q

## QUEUE THEORY

1469 1471 9202 9203  
JUNE FEATURE ARTICLE

## QUICKSAND

1716

## R

## RADIATION

1229 1232 3751 6602 8917 8918 8920 8921 8923 8924  
9908 9160 9831

## PROPERTIES

4469

\*SEE ALSO\*--- HEAT TRANSFER, RADIATION

## RADIATION PRESSURE

4529

## RADIOACTIVE

8982 9993

## ISOTOPE TRACERS

734 6585

## RAILROAD SYSTEMS

5240 9596

## EQUIPMENT

2245 7157

## HIGH SPEED TRAINS

5092 5836

## RAILROAD SYSTEMS \*CONTINUED\*

\*SEE ALSO\*--- VEHICLES, RAILWAY TRAINS

RAILS  
1737

RAINDROPS--- \*SEE\* DROPS

RAINFALL--- \*SEE\* HYDROLOGY, RAINFALL

RAMJETS ---\*SEE\* JET ENGINES, RAMJET

RANDOM PROCESSES--- \*SEE\* STOCHASTIC PROCESSES

## RAREFIED GASES

18 430 1856 1859 1860 1979 1984 2643 2704 3094  
3534 3536 3537 3571 4392 4394 4396 4769 5336 5364  
5367 5368 5369 6272 6280 6282 6283 7435 8780 8791  
8792 9617 9698 9699 9703 9704  
JUNE FEATURE ARTICLEBEAM EXPERIMENTS  
429 6361

## FREE-MOLECULE FLOW

431 2644 2645 2646 4397 5370 6284 9700 9702

GAS-SURFACE INTERACTIONS  
433 7027 9884SLIP FLOW  
2642 4395

\*SEE ALSO\*--- MOLECULAR BEAMS

RATIONAL MECHANICS--- \*SEE\* CONTINUUM MECHANICS

REACTION KINETICS--- \*SEE\* COMBUSTION, REACTION  
KINETICSREDUNDANT STRUCTURES--- \*SEE\* STRUCTURES, STATICALLY  
INDETERMINATE

## REENTRY

648 654 1338 1348 2703 2897 2898 4643 7360 7557  
9041REFLECTION--- \*SEE\* INTERFACE PHENOMENA --  
SOUND, REFLECTIONREFRACTION--- \*SEE\* INTERFACE PHENOMENA --  
SOUND, REFRACTIONREFRIGERATION, AIRCONDITIONING  
384 2772 2798 5507 8940

\*SEE ALSO\*--- HEAT PUMPS

## REINFORCED CONCRETE

CONSTRUCTIONS  
319 333 1040 6212 6992CRACKING  
5186DESIGN, ELASTIC  
5995DESIGN, LIMIT  
316 321 323 1042 2329 3393 5222 6165 8684DESIGN, ULTIMATE STRENGTH  
6980 7876PIPES  
6987SHRINKAGE  
320 322

## REINFORCED CONCRETE \*CONTINUED\*

## SLABS

1039 2329 4265 4266 5225 5246 6160 6161 6171 6172  
7874 7875 7883

## STRUCTURAL ANALYSIS METHODS

1037 2329 4263 4267 5226 6159 8690 8691 9572 9573  
9574

## TESTS AND TESTING

1038 3397 4262 4268 4269 6981 6988 6990 9431 9530

SEE ALSO\*--- ARCHES AND VAULTS -- BEAMS,  
REINFORCED CONCRETE -- COLUMNS, REINFORCED  
CONCRETE -- CONCRETE AND MASONRY -- FATIGUE --  
PLATES, REINFORCED CONCRETE -- SHELLS, REINFORCED  
CONCRETE -- STRESS AND STRAIN -- STRUCTURESREINFORCED MATERIALS--- \*SEE\* COMPOSITE MATERIALS,  
REINFORCED

## RELATIVITY

1099 1117 2749 3104 3105 3631 3755 4013 4014 4480  
4823 4919 4920 4921 5844 6602 7569 7588 8391 9282RELAXATION METHODS--- \*SEE\* NUMERICAL ANALYSIS,  
RELAXATION METHODS

## RELIABILITY

3936 5748 6107 6970

## RENDEZVOUS

2899 3812

## RESERVOIR ENGINEERING

256 2956 3835 8230 9107 9111 9973

\*SEE ALSO\*--- GEOPHYSICS, EXPLORATION -- POROUS  
MEDIA -- SEEPAGE -- WELLSRESIDUAL STRESS AND STRAIN---\*SEE\* STRESS AND  
STRAIN, RESIDUAL

RESONANCE--- \*SEE\* VIBRATION, STABILITY

## RETAINING WALLS

2531 4206 5147 5148 5157 7818 8597 9489

## RHEOLOGY

254 3433 4310 7803 7884 9617

## COLLOIDS AND SUSPENSIONS

355 1058 1059 1798 1799 3435 3441 3442 4321 5271  
6218 7472 7929 9164

## CONSTITUTIVE EQUATIONS

358 1792 1798 1799 2576 2579 2581 3137 3435 3444  
4057 4314 4315 4318 4319 5262 5272 5887 6215 6218  
6221 7024 7026 7924 7925 9621

## DYNAMIC PROPERTIES

756 757 1439 2576 2581 3137 3437 3443 4150 4315  
4319 5262 5267 5269 5272 6213 6214 7024 7025 7635  
7924 7925 7927 7929 8194 8423 9165 9618 9621

## MEASUREMENTS

108 356 753 755 760 1058 1059 1060 1061 1794  
1798 2578 3139 3435 3439 3444 3893 4321 5267 5271  
6216 7027 7029 7030\*SEE ALSO\*--- CONTINUUM MECHANICS, CONSTITUTIVE  
EQUATIONS -- FLOW, COMPRESSIBLE, NON-NEWTONIAN --  
FLOW, INCOMPRESSIBLE, NON-NEWTONIAN --  
PLASTICITY -- VISCOELASTICITY -- VISCOPLASTICITY

RINGS--- \*SEE\* ARCHES AND VAULTS

RIVERS--- \*SEE\* STREAMS, NATURAL



ROAD BEDS--- \*SEE\* HIGHWAY AND RUNWAY CONSTRUCTION

## ROCK MECHANICS

335 991 1420 2439 2454 2455 2458 3262 3290 3291  
 3292 3294 3296 3297 3301 3876 3877 4207 4208 4210  
 5162 5166 5167 5168 5671 6075 6077 6578 6935 8600  
 8603 8604 8649 8650 8651 8699 9108 9492 9493 9495  
 9496 9497 9498 9500

## ROCKETS

1265 2025 2402 3755 4376 7339 9274 9277

## COMBUSTION CHAMBERS

1257 2011 5532 8977 9856

## CONTROL

4898 9905

## LIQUID FUEL

4464 4569 5533 5553 5616 6345 9837

## MOTORS

1264 1980 5551 6009 6032 6345 6453 7369 8062 8653  
 8693 9857 9859

## NOZZLES

1251 2609 4575 7963 8974 9827

## SOLID FUEL

658 2017 4579 5552 5554 6009 6032

## SOUNDING

7758

\*SEE ALSO\*--- METEOROLOGY, ROCKETS AND  
 SATELLITES -- MISSILES -- PERFORMANCE, ROCKET  
 MOTOR -- SPACE POWER -- SPACE VEHICLE DESIGN --  
 SPACE VEHICLE PROPULSION --  
 VIBRATION, MISSILES AND ROCKETS

RODS--- \*SEE\* BEAMS

## ROLLING

257 260 793 994 2333 2463 2464 2465 2490 3145  
 5173 5174 5889 6079 6081 6083 6084 6190 6916 6918  
 7820 7821 8449 9506 9507

\*SEE ALSO\*--- DRAWING -- EXTRUDING -- FORGING --  
 FORMING

ROPES--- \*SEE\* CABLES AND FLEXIBLE FILAMENTS

## ROTATING CYLINDERS, FLOW BETWEEN

1059 1075 1176 2577 2775 3446 3579 4318 4357 9264  
 7071 7946 7958 8831 9656

## ROTATING DISKS

1999 8056 8069 8913 8944 8947 8948

## FLOW BETWEEN

600 4318 6250 9714

## STRESSES

4217 9324

\*SEE ALSO\*--- VIBRATION, ROTATING DISKS

## ROTATIONAL FLOW

378 1076 1077 1081 1097 1162 2600 2602 2616 3438  
 3486 3488 3492 3497 3501 3509 3510 4318 4343 4344  
 4345 4368 5289 5290 5301 5312 5435 6218 6253 7025  
 7062 7239 7409 7927 7928 7946 7955 7959 7960 8762  
 8765 8770 8984 8988 9645 9649 9767 9875

\*SEE ALSO\*--- FLOW, INCOMPRESSIBLE, NONVISCIOUS,  
 ROTATIONAL -- ROTATING CYLINDERS, FLOW BETWEEN --  
 ROTATING DISKS, FLOW BETWEEN -- VORTEX FLOW

RUNOFF--- \*SEE\* HYDROLOGY, RUNOFF

RUNWAYS--- \*SEE\* HIGHWAY AND RUNWAY CONSTRUCTION

## S

## SAND

243 979 1711 1712 3281 3284 3831 5139 6053 6731  
 6902 7429

## SANDWICH CONSTRUCTION

129 2367 3976 5977 5979 6155 7624 7626 7636 7678  
 7679 7715 8457 8477 8516

\*SEE ALSO\*--- BUCKLING, SANDWICH CONSTRUCTION --  
 THERMOELASTICITY, SANDWICH CONSTRUCTION

## SANITARY ENGINEERING

2966 8225 7040

## SATELLITES

4005 4529 5840 6695 7357 7571 8076 8562 9273

\*SEE ALSO\*--- ARTIFICIAL SATELLITES --  
 INTERPLANETARY PROBES, PLANETARY SATELLITES --  
 ORBIT MECHANICS -- RADIATION PRESSURE --  
 REENTRY -- RENDEZVOUS -- TESTING

## SCALE EFFECT

6097 6968 8637 9403

\*SEE ALSO\*--- MODEL STUDIES

SCHLIEREN METHOD--- \*SEE\* OPTICAL TECHNIQUES

SCRAMJET--- \*SEE\* JET ENGINES, SCRAMJET

## SCREWS

3431 5445 7009 9598 9599

\*SEE ALSO\*--- JOINTS AND JOINING PROCESSES, BOLTED

## SEALS

1780 1781 2554 2617 3423 3424 3425 4784 5724 7180  
 7448 8292 8709 9144

## SECONDARY FLOW

367 368 1063 2593

## COMPRESSIBLE

9787

## INCOMPRESSIBLE

351 3660 4318 4436 4444 4743 5702 6219 6348 7178  
 7953 7958 7959 7960 8766 9617

\*SEE ALSO\*--- FLOW, INCOMPRESSIBLE, VISCOUS,  
 SECONDARY

## SEDIMENT TRANSPORT

1069 1072 2944 3473 4338 4339 5280 5660 5665 7055  
 7056 7057 7933 9096 9097 9098 9099

\*SEE ALSO\*--- CHANNELS, SEDIMENTATION --  
 PIPE FLOW, SEDIMENT TRANSPORT

## SEDIMENTATION

690 1082 1085 3446 5661 6225 7039 7940 8759 9109

## SEEPAGE

703 2137 2140 2957 3467 3837 5669 8220 8226 8227

\*SEE ALSO\*--- WELLS

## SEISMOLOGY

706 710 954 966 971 1048 1383 1385 1390 1681  
 2432 2442 2962 3241 3262 3846 4178 4750 4755 4756  
 5166 5679 5683 5684 5685 5693 6556 6640 6845 7420  
 7426 8233 8235 8236 8240 9117 9122 9473 9975 9977

## SEISMOLOGY \*CONTINUED\*

## EARTHQUAKES

338 707 708 1384 1386 1718 2065 2142 2452 2454  
2455 2546 2960 2961 4291 4292 4293 4294 4751 5676  
5677 5678 5681 6906 7423 7424 8558 9113 9115 9119  
9120 9592 9976

## EXPLOSIONQUAKES

709 1387 5680 5682 7419 7421 7422 7425 8238 8239  
9114

## MICROSEISMOLOGY

3292 8234 9118 9122 9123

\*SEE ALSO\*--- GEOPHYSICS, EXPLORATION

SELF IGNITION---\*SEE\* IGNITION, SELF

## SEMICONDUCTORS

299 1195 3375 4155 4497

## DIODES

2047

## SERIES EXPANSION AND OTHER APPROXIMATIONS

765 2995 3920 3925 4833 4848 5751 6602 9432

## FOURIER SERIES

24 1459 1467 1500 3917 4306 6807 8535 9183 9185

## SERIES IN OTHER SETS OF FUNCTIONS

1788 3902 7585 9406

## SERIES OF OTHER ORTHOGONAL FUNCTIONS

18 5773 8330 9173 9210 9226

SETTLEMENT OF SOILS---\*SEE\* SOIL MECHANICS

## SEWERAGE

4326 4328

## SHAFTS

1621 3384 4236 5997 5999 6818 7750 8537 8538 9416

## CRITICAL SPEED

204 1668 5998 6861 8561

## WHIRLING

189 934 2980 5079 6855 7480

\*SEE ALSO\*--- TORSION, SHAFTS -- VIBRATION, SHAFTS

## SHAPING

3309 3315

SHEET STRINGER PANELS---\*SEE\* PLATES, STIFFENED

## SHEAR LAYER

6241 7140

## LAMINAR

1879 5451

## TURBULENT

1131 1135 2683 8291

\*SEE ALSO\*--- BOUNDARY LAYER -- JETS -- WAKES

## SHELLS

909 914 1629 1633 2355 3109 3169 3170 3178 4073  
4078 4083 4085 4116 4224 4279 5183 5933 5940 7671  
7697 8459 8472 8477 8485 8675 9371

## ANISOTROPIC

194 2410 4086 5015 5954 5994 7743 8545 9425

## BELLOWS

148 8510

## BENDING, ARBITRARY SHAPE

5024 5033 9364

## SHELLS \*CONTINUED\*

## BENDING, AXISYMMETRIC

132 904 1580 1631 1638 1641 3173 3179 9338

## BENDING, STIFFENED

5014

## CONICAL

903 909 1634 1677 2419 5020 6005 6765 6838 7706  
7741 8520 8525 8526 9021 9356 9376

## CREEP

107 112 883 2481 4952 7636 7748 9322 9323 9360  
9366

## CYLINDRICAL, STIFFENED

1646 1689 2370 3184 4076 4084 4089 4105 5021 6008  
6770 7636 7716 7742 9375 9377

## CYLINDRICAL, THICK

104 112 883 1603 1608 4080 5994 6162 6890 7651  
7653 9322

## CYLINDRICAL, THIN

131 137 938 1635 1673 1675 1676 1678 1689 2067  
2419 3171 3172 4132 4133 4167 5602 5603 5939 5941  
5944 5950 5990 6007 6032 6033 6034 6767 6834 6882  
7175 7649 7652 7699 7700 7702 7705 7743 7770 8473  
8474 8519 8544 8545 8546 9214 9215 9216 9217 9218  
9353 9363 9367 9370 9428 9433 9893

## DYNAMIC LOADING

1000 2409 2918 3268 4168 5602 5603 5607 6005 6010  
6011 6032 6033 6034 6048 6510 6835 7653 8545 9401  
9429

## ELLIPSOIDAL

5934

## GENERAL THEORY

134 136 1636 2364 2372 3175 4066 4087 5007 5008  
5011 5028 5935 5946 6010 6757 6769 7682 8461 9361  
9379

## HYPERBOLIC

5013 5970

## HYPERBOLIC PARABOLOID

140 913 2362 3174 4134 6782 7698 7708 8469 9352

## LARGE DEFORMATION

148 1649 1650 2363 2373 3185 5017 6774 7672 7740  
8481 8521 9382

## LATTICE

5006

## NONHOMOGENEOUS

4111 5945 5952 6837 6839 8490 8491 8522

## NONLINEAR

3182 6772 9381

## PLASTIC

882 883 1603 1608 2366 4979 5019 5917 5932 6048  
7651 7652 8682 9357 9359 9374

## PLASTIC DEFORMATION

2480 2544 5032 7649 7651 7653

## REINFORCED CONCRETE

5228 9573

## REVOLUTION

145 902 1648 2365 2371 2374 2375 2376 2381 2410  
3177 3182 3403 4075 4280 5018 5936 5952 5973 6766  
6777 7696 7701 7707 7710 8470 9357 9358 9373

## SHALLOW

133 138 139 941 4074 4109 4979 5012 5016 5937  
5942 5949 6174 6771 6840 6841 6998 7703 7704 7739

## SHELLS \*CONTINUED\*

## SHALLOW \*CONTINUED\*

7771 8486 8487 9355 9362 9365 9368 9372 9424 9427

## SPHERICAL

873 941 1608 2185 2721 3243 4104 4932 4979 5009  
5010 5948 5957 6775 7771 7772 7846 8471 8480 8521  
9322

## STIFFENED

905 959 1674 5026 7000 7004 7741 9590

## TORISPHERICAL

4109

## TOROIDAL

1632 1639 9214 9215 9216 9217 9218

## WITH OPENINGS

870 3176 4026 4082 4092 5022 5938 5969 6768 9354  
9383 9585 9586\*SEE ALSO\*--- BUCKLING, SHELLS -- ENERGY METHODS --  
FATIGUE, SHELLS -- FLUTTER, SHELLS -- LIMIT  
DESIGN, SHELLS -- PIPES AND TUBES -- SILOS --  
STRUCTURES, FINITE ELEMENT METHODS --  
THERMOELASTICITY, SHELLS -- TORSION, SHELLS --  
VIBRATION, SHELLS

## SHIP--- \*SEE\* MARINE ENGINEERING

## SHOCK

2214 2903 4653 5116 5129 6040

## ABSORBERS

5102 5103 5112 5125 6809 6859 7562

## MECHANICAL

6834

## SPECTRA

5984 6876

## TESTING

234

## THERMAL

1146

\*SEE ALSO\*--- IMPACT

## SHOCK TUBES

1110 1179 1840 1926 1932 1934 1935 2630 2743 2744  
3615 3624 4473 6275 6404 7197 7198 7983 8145 8883  
8968 9883

## MAGNETIC

625 636 637 1178 2051 2746 2848 3622 3623 4472  
4588 5600 7332 8131

## TUNNELS

512 664

## SHOCK WAVES IN FLUIDS

1113 1116 1232 1838 1875 2103 2629 2633 2721 3518  
3522 3529 3531 3698 3730 4375 4650 5334 5341 5345  
7107 7109 7124 7982 7991 8779 8780 8782 9673 9769  
9770

## DETACHED

1837 2702 2745 3519 5335 7297 9677 9678

## DIFFRACTION

407 409 415 1355 4376 5344 7981 8858

## INTERACTION

470 581 624 1105 2721 5333 5339 7335 8860

## MEASUREMENT

410 1298 1300 2034 2632 2745 4469 9679

## SHOCK WAVES IN FLUIDS \*CONTINUED\*

## NORMAL

408 413 988 7196 8144 8146

## REFLECTION

470 1111 1969 3514 3520 5346 7984 8858 8860 9695  
9914

## STABILITY

408 1839 2056 7106 9672

## STRUCTURE

410 411 432 1110 1112 1115 1299 1841 1901 4608  
5342 5347 6274 7104 7105 7108 9014 9870

## OBLIQUE

1136 1881 5337 5338 5379 7249

\*SEE ALSO\*--- COMBUSTION, SHOCK WAVES --  
HIGH PRESSURE

## SHOCK WAVES IN SOLIDS

239 240 241 972 976 977 1705 1706 2920 3265  
3275 4158 4163 4173 4182 4183 5116 5131 6040 6630  
6899

## ATTENUATION

1707

## STABILITY

9463

\*SEE ALSO\*--- HIGH PRESSURE

## SIEVING

2950 7417 7418

## SILOS

7805 8598

SIMILITUDE--- \*SEE\* DIMENSIONAL ANALYSIS

## SIMULATION

2192 2193 2213 2218 2222 3607 3897 3927 3966 4171  
5791 5793 5794 5818 7318 7343 7346 9246

## ANALOG

29 796 1538 1548 2243 2984 3029 3072 3250 4012  
4857 4861 4909 6871 8548 8549 9427 10006

## DIGITAL

50 213 1495 3032 3961 5813 7511 7553 8328 9225

\*SEE ALSO\*--- COMPUTING TECHNIQUES

## SKIN FRICTION

2695 7161

## FLUID FLOW

1873 1886 7130 9716

SLIP FLOW--- \*SEE\* RAREFIED GASES, SLIP FLOW

SLOPE STABILITY--- \*SEE\* SOIL MECHANICS, SLOPE  
STABILITY

SLOSHING--- \*SEE\* LIQUID SLOSHING

SMOKE TUNNEL--- \*SEE\* OPTICAL TECHNIQUES, SMOKE  
TUNNEL

## SNOW

3656 4973 6731 8237

## SOIL MECHANICS

285 1711 1712 2449 3276 4184 5138 6053 6601 6903  
6904 6939 7799 7806 8229 9976

## BEARING CAPACITY

7809 8589 9481 9483

## SOIL MECHANICS \*CONTINUED\*

## COMPACTION

727 982 6055 6066 6907 8579 8580

## CONSOLIDATION

980 981 2446 3279 4189 6054 6069 7801 7802 8583

## DYNAMICS

249 4190 4191 4192 4193 5151 5163 5164 6013 6055  
6057 6822 6845 6846 6906 8587 8590 8594  
JANUARY FEATURE ARTICLE

## EARTH PRESSURE

990 3277 3296 4187 4194 4200 4206 4210 5144 5145  
5148 5151 5154 5159 5244 6072 7805 7818 8604 8605  
9488

## MULTILAYER

2447 5167

## PERMEABILITY

4739 5671 6549

## PLASTICITY

1713 3280 3282 3283 4188 4975 5140 5147 6053 6909  
8584 8585

## PROPERTIES

244 1710 2445 2457 3293 4185 4209 4211 6058 6732  
6902 7804 8582  
JANUARY FEATURE ARTICLE

## SETTLEMENTS

251 2450 3289 4195 4199 6057 7807 9482 9487  
JANUARY FEATURE ARTICLE

## SLOPE STABILITY

253 1717 3298 4202 4203 4204 4205 5158 6076 6905  
8596 8602

## STABILIZATION

1714 4186 4191 6070 7817 9490 9491

## TESTING METHODS

246 256 984 985 993 1715 2448 2456 3286 3287  
3288 3295 3297 3299 3301 5153 5154 5161 5168 6056  
6059 6073 8232 8579 8586 8590 9501  
JANUARY FEATURE ARTICLE\*SEE ALSO--- CLAY -- DAMS -- FOUNDATIONS -- HEAT  
TRANSFER, SOIL -- HIGHWAY AND RUNWAY  
CONSTRUCTION -- HYDROLOGY -- PERMAFROST --  
PILES -- QUICKSAND -- RETAINING WALLS -- SAND --  
SEDIMENTATION -- SEEPAGE -- TRAFFICABILITY --  
TUNNELS -- VIBRATION, SOIL -- WELLS

## SOLAR

723 1222 1224 1225 3690

## COLLECTORS

556 722 1985 2154 3688 3857 6407 7262 9132

## DISTILLATION

1404

## ENERGY

553 1957 3693 4529 9012 9131

## ENGINE

721 1235 3688

## FURNACES

1995

\*SEE ALSO--- SPACE PROPULSION, SOLAR

## SONIC BOOM

329 668 1114 1355 1762 1842 1888 1897 2103 2437  
2917 2924 4670 4672 5107 7097 7110 8170 8175 9675

## SOOT FORMATION

588

## SOUND

3846 4658 7388 8168 8189 9935

## ABSORPTION

671 1359 1360 1363 2914 4677 4681 4682 4684 4685  
6513 7369 7371 7374 7387 8192 9055 9062 9063 9927

## ATTENUATION

1361 1364 4681 4687 4693 6528 7373 7378 7382 7383  
8187 8193 9055 9931 9932

## DIFFRACTION

670 2104 2922 4161 4676 4680 7375 9924 9925 9934

## DIFFUSION

4682

## DISPERSION

676 2107 2921 4686 7381 7990

## ENERGY DENSITY

1353 7368 9056

## EXPERIMENTAL

665 668 678 681 1351 1365 2919 4667 4682 4701  
4702 5745 6507 6530 6590 6597 6598 6599 6600 8188  
9919 9929 9930 10001

## FIELDS

673 1353 1378 2101 2102 2114 2909 2913 4664 4668  
4701 4702 4703 5110 6507 6517 6518 6520 6600 7368  
7373 8302 9056 9060 9833 9924

## GENERATION

661 662 663 664 667 679 1354 1358 1370 2100  
2101 2102 2111 2911 2915 2918 4659 4662 4663 4664  
4669 4671 4673 6508 6513 6515 6518 7367 8027 8166  
9053 9060

## LIQUIDS

665 677 2100 2109 2110 4669 4675 4677 4679 4685  
4689 4690 4691 4694 4695 6237 6516 6523 6525 6528  
7372 8178 8190 9054 9064 9065 9934

## MEASUREMENT AND INSTRUMENTS

659 668 681 1351 1353 1358 1369 1370 2107 2108  
2109 2110 2112 2113 2919 2924 2989 4662 4665 4667  
4675 4681 4697 6506 6508 6514 6516 6523 6524 6527  
6528 6530 6597 6598 6599 6600 7368 7377 7380 7387  
8165 8172 8174 8175 8176 8177 8184 8186 8187 8190  
8192 8193 8196 8302 8309 9062 9069 9161 9919 9922  
9931

## PRESSURE

669 670 678 1354 1358 1368 1369 1370 2103 2104  
2113 2917 2924 2927 4661 4662 4668 4670 4691 4700  
4703 5110 6003 6506 6508 6514 6517 6520 6523 7366  
7371 8165 8171 8175 8179 8191 8556 9052 9054 9059  
9061 9456

## PROPAGATION

1355 2107 2919 4693 4694 5673 6517 7370 7379 8167  
8183 8194 9055 9064 9067 9926

## PROPAGATION IN DUCTS

671 2722 4659 4696 7372 7378

## RADIATION

659 660 667 2101 2909 2910 2927 4675 6509 6510  
6511 6515 7177 7376 7379 8184 8553 9051 9052 9057  
9924 9937

## RANDOM

2421 4666 5110

## REFLECTION

670 673 675 1357 1360 1363 2105 2114 2916 4679  
6518 6526 7366 7372 7373 8178 8190 9923 9929 9930  
9933

## SOUND \*CONTINUED\*

REFRACTION  
4674 5623 7366 8181 9926

REVERBERATION  
1359 1360 1369 2106 4688 4702 6519 6525 8180 9059  
9922

SCATTERING  
669 672 675 1363 2107 2913 2916 4161 4674 4683  
4685 4688 4695 6521 6523 7375 7798 8178 8179 9060  
9923

TRANSMISSION  
2105 2925 4676 4681 4688 6521 6847 7385 7387 8187  
9064

VELOCITY  
2108 2920 2922 2926 4687 4689 4690 4695 6514 6524  
6528 7378 7379 8180 9061 9066 9933

WAVES  
678 681 1357 2430 2913 5775 9928 9965 9966

\*SEE ALSO\*--- AEROTHERMOACOUSTICS -- COMBUSTION,  
ACOUSTICS -- IMPEDANCE METHODS -- INTERFACE  
PHENOMENA -- NOISE -- SONIC ROOM -- TURBULENCE

SPACE NAVIGATION AND GUIDANCE  
788 1337 2076 4638

GUIDANCE OPTIMIZATION  
3922 6503

MIDCOURSE GUIDANCE  
9199

NAVIGATIONAL EQUIPMENT  
2075

\*SEE ALSO\*--- CELESTIAL MECHANICS -- LIQUID  
SLOSHING -- ORBIT MECHANICS -- SPACE VEHICLE  
STABILIZATION

SPACE POWER  
4550

NUCLEAR  
2027

SOLAR  
1235

\*SEE ALSO\*--- SPACE NAVIGATION AND GUIDANCE

## SPACE VEHICLE DESIGN

571 574 1224 1225 1891 2814 2815 4545 5089 5506  
7256 7283 7284 7357 7358 8048 8076 8099 8383 8900  
8945 9831

LANDING DEVICES  
7360

LIFE SUPPORT SYSTEM  
1961 9154

STRUCTURAL DESIGN  
1343 1350 2424 3573 5615 5617 6019 6850 6852 8551  
9401

STRUCTURAL MATERIALS  
4530

STRUCTURAL OPTIMIZATION  
2424 6690

\*SEE ALSO\*--- STRUCTURES, SPACE VEHICLE

SPACE VEHICLE PROPULSION  
1980 8975

ASCENT  
9039

IONIC  
7308

OPTIMIZATION  
7351

PERFORMANCE  
4464

PLASMA  
598 1290 1291 2050 2847 2853 3757 3774 3784 4604  
5557 5589 7318 7334 8137 8140 8141 8147 8999 9015  
9879 9885 9889 9890

VARIABLE MASS DYNAMICS  
1340

\*SEE ALSO\*--- ORBIT MECHANICS -- PROPELLANTS --  
SPACE NAVIGATION AND GUIDANCE

SPACE VEHICLE RECOVERY  
1139 1140 3568 6323SPACE VEHICLE STABILIZATION  
6502 7548

ATTITUDE-STABILIZATION  
1502 1503 2077 2269 2895 3056 3803 4646 5614 6687  
7357 7358 9038 9042 9906

GYROSCOPIC  
2078 4637 7579

MAGNETIC  
4633

ORBIT STABILIZATION  
7573

SOLAR PRESSURE  
1563

STABILITY THEORY  
7357

\*SEE ALSO\*--- ORBIT MECHANICS --  
SPACE NAVIGATION AND GUIDANCE --  
SPACE POWER

## SPECIAL MATHEMATICAL FUNCTIONS

22 765 1454 2198 2199 3002 3004 3007 3014 3098  
3901 3904 3907 3919 3920 3921 3924 3925 3933 3935  
4014 4822 4826 4833 4848 4852 4854 5770 5773 5774  
5776 5778 6602 6618 6622 8323 8331 9173 9186 9206  
9211 9601

SPECIFIC HEAT--- \*SEE\* THERMOPHYSICAL PROPERTIES,  
SPECIFIC HEAT

SPECTRAL ANALYSIS  
2280 2424 4665 6520 6593 6875 8191

\*SEE ALSO\*--- SPECTROSCOPY

SPECTROSCOPY  
617 2052 3875 5601

\*SEE ALSO\*--- SPECTRAL ANALYSIS

SPILLWAYS--- \*SEE\* HYDRAULIC STRUCTURES, SPILLWAYS

SPINNING--- \*SEE\* AIRPLANE, SPIN RECOVERY



## SPRAYS

386 2127 2130 4720 5662 5663 7411 8093 8212 9765  
9964

## SPRINGS

1696 1734 4300 6189 8494 9524

## NONLINEAR

341

\*SEE ALSO\*--- VIBRATION, SPRINGS

## STABILITY--- \*SEE\* UNDER MODIFIER

## STABILITY THEORY

40 72 74 801 807 808 857 1493 1560 1882  
2886 3093 3094 3096 3098 3248 3251 3252 3253 3799  
3801 4003 4005 4009 4867 4911 4912 4913 4915 4916  
4918 5603 6193 6644 6695 6698 6868 6870 6872 7582  
7583 7778 8020 8527 9236 9238 9276 9454 9762 9780  
9784  
MARCH FEATURE ARTICLE  
OCTOBER FEATURE ARTICLE

\*SEE ALSO\*--- CONTROL STABILITY

## STABILIZATION OF MOTION--- \*SEE\* VIBRATION, STABILITY

STABILIZATION OF SOILS--- \*SEE\* SOIL MECHANICS,  
STABILIZATION

## STALLING

5407 8830

## BLADES

5610 8867

STATICALLY INDETERMINATE STRUCTURES--- \*SEE\*  
STRUCTURES, STATICALLY INDETERMINATE

## STATICS

2278 3088 7568 7569

## STATISTICAL CONTROL THEORY

839 847 849 852 1497 1499 1533 1545 2221 2246  
3952 3956 3986 5812 6561 6570 6669 6678 6686 6970  
7419 7545 7549 7560 8242 8351 8356 8382 9114 9258  
9979

## DECISION THEORY

783 787 2277 8353 8355

## DESIGN

44 787 819 853 6684

## ESTIMATION

63 834 853 1483 1531 3955 3970 3971 4874 5802  
5831 6683 7530 7555 8357 8385

## FILTERING

43 843 1482 1496 1531 2223 2224 3953 5801 6685  
7561 9242

## LINEARIZATION

1487 1501 6647

## NOISE

46 666 848 1496 1532 1539 1543 2222 2236 2239  
3991 4876 4892 4894 5829 6659 6663 7540 8348 8380  
9242 9259

## PREDICTION

1549 3953 6685

## STATISTICAL OPTIMIZATION

62 4875

## STATISTICAL DESIGN

6922 8384

## STATISTICAL MECHANICS

1 219 857 2750 3630 4002 4153 4479 5263 5453  
6221 7572 7576 7643 8387 8885  
AUGUST FEATURE ARTICLE

## STATISTICAL THEORY

19 20 781 785 945 1467 1468 2193 2203 2210  
2212 2993 3010 3022 3901 3937 3958 4840 5767 5772  
6642 6851 7478 7504 7505 7506 7507 8326 8328 8333  
8335 8563 9059 9066 9190 9197 9199  
AUGUST FEATURE ARTICLE

\*SEE ALSO\*--- DATA ANALYSIS -- ERROR --  
INFORMATION THEORY -- OPERATIONS RESEARCH --  
RELIABILITY -- STATISTICAL CONTROL THEORY --  
STATISTICAL DESIGN -- STOCHASTIC PROCESSES

STATISTICAL THERMODYNAMICS--- \*SEE\* THERMODYNAMICS,  
STATISTICAL

## STEAM

568 696 1947 2753 2754 2755 4484 4494 4542 5504  
6413 7211 8890

## TABLES

526 1189 1190 1191 1194

## STEAM POWER PLANTS--- \*SEE\* POWER PLANTS, STEAM

## STILLING BASIN--- \*SEE\* SURGE TANKS

## STOCHASTIC PROCESSES

44 387 783 817 818 1465 1466 1534 2197 2237  
2965 3009 3011 3025 3823 3901 3906 3922 3926 4841  
4842 4844 4903 4967 5580 5769 5770 6625 6626 6732  
6835 6867 7482 7503 7543 7544 8324 8325 8327 8559  
9125 9191 9192 9194 9195 9196 9201 9202 9243 9246  
9455 9798 9979

\*SEE ALSO\*--- STATISTICAL CONTROL THEORY

## STOL

639 640 641 642 6316 6481 6484 6485 6486 7347  
9028 9899

\*SEE ALSO\*--- GROUND EFFECT MACHINES -- HYDROFOILS,  
CRAFT -- VTOL

## STRAIN HARDENING

109 116 730 1606 1701 2336 2337 2460 3869 3873  
4957 4963 4969 5712 6080 6729 6743 7648 7649 8282  
8287 8576

STRAIN MEASUREMENT--- \*SEE\* EXPERIMENTAL STRESS  
ANALYSIS

## STRESS AND STRAIN

752 1020 1451 1735 2511 2521 3322 3329 3354 3371  
3384 4466 5678 5721 6123 6942 9119 9122

## ANALYSIS

118 119 759 961 2565 3143 3145 3372 4245 4967  
4976 5694 5794 5898 5899 5903 6127 6200 6626 6742  
6971 7446 7463 7464 7647 8431 8438 8646 8663 8704  
9207 9212 9214 9215 9216 9217 9218 9224 9333 9334  
9565

## ANALYSIS TECHNIQUES, ELECTRICAL

302 1742 3370 4244 5193 6134 6135 6964 7846 7847  
7849 7850 8657 9542 9543 9548

## ANALYSIS TECHNIQUES, MECHANICAL

1022 4054

## ANALYSIS TECHNIQUES, OPTICAL

297 298 299 300 887 1023 1740 1741 1744 1746  
2503 2504 2505 3357 3360 3362 3364 3365 3366 3368  
3369 4242 4243 5199 5202 5203 5204 5205 5207 6137  
6972 7843 7844 7845 7851 7852 8645 8649 8650 8652  
8653 8654 8656 8658 8660 9529 9534 9537 9538 9540  
9541 9545 9546

## STRESS AND STRAIN \*CONTINUED\*

## CONCENTRATION

271 275 294 344 1745 2478 2479 2483 2501 3358  
4219 4225 4228 4802 4937 4938 5187 5188 5196 5197  
5864 5882 5886 6036 6114 6126 6130 6885 6961 7628  
7638 7798 7838 8629 8637 9321 9520 9535 9585 9792

## CONTACT

4303 4946 4982 6200

## FINITE DEFORMATION

5127

## RELAXATION

1599 1795 2323 2517 3136 4044 7639 7655 8301 8436

## RESIDUAL

286 287 1024 1734 1747 2490 2513 3347 3349 4052  
4053 4232 4973 4982 5194 5211 5212 5213 6095 6112  
6139 6201 6925 6954 7650 7916 8661 8707 9331 9524  
9615

\*SEE ALSO\*---COATINGS -- EXPERIMENTAL STRESS  
ANALYSIS -- HOLOGRAPHY -- PHOTOELASTICITY --  
PHOTOPLASTICITY -- THERMOELASTICITY --  
THERMOPLASTICITY

## STREAMS

2589 7055 7934 7940 8738 8739

## FLOOD FLOW

471 2585 2587 4330 5275 7174 7932

## NATURAL

372 1171 2590 3453 3471 3475 3608 4325 7044 8245  
9979

## STRESS CORROSION

1017 1018 1738 2494 2495 3349 4056 9527

## STRESS RELIEVING

4976 6925 8707

\*SEE ALSO\*--- HEAT TREATMENT

## STRINGS

4123 5076 5988 6810 6812 7751 7760 7795 8530 9274  
9411 9413

\*SEE ALSO\*--- VIBRATION, CABLES AND STRINGS

## STRUCTURES

29 1612 2188 3887 4285 4716 6109 7875 7885 8675  
9336 9384 9385

## AERIAL TRANSIT

5088 6851

## AIRPLANE

200 1680 4246 5088 6527 6626 6836 6848 6851 7908  
7909 7910 8552 8556 9026 9591 9742 9743 9824

## ANALYSIS

311 312 313 1033 1044 1046 1618 1761 2309 2544  
2545 3163 3196 3199 3387 3392 3432 4254 4255 4257  
4265 4266 4267 4272 4274 4279 4984 5083 5097 5214  
5215 5217 5222 5246 6164 6976 6979 6980 6981 6995  
7002 7869 7871 7879 7881 7882 7888 7889 7890 7891  
8678 8680 8681 8682 8692 8696 8697 8698 8699 9566  
9572 9573 9574 9577 9578 9580 9582 9586

## BLAST RESISTANT

285 5249 6971 6993 6994

## BUILDINGS

290 327 336 4142 4151 4274 4282 4283 4284 5107  
5198 6177 6180 6182 6183 6211 6845 7007 7222 7899  
7901 7903 7904 7906 7918

## CABLE SUPPORTED

332 337 2416 4270 4984 6977 7894 7895 9563 9583

## STRUCTURES \*CONTINUED\*

## COMPOSITE

147 7641 7880 9404 9569

## CONTAINMENT

7896 8703

## CREEP

2378 4275 5221 7639 8677 9324

## CUTOUTS

6185 7718

## DESIGN, EARTHQUAKE RESISTANT

4151 9593  
JANUARY FEATURE ARTICLE

## DESIGN, LIMIT

316 317 323 1754 2524 2538 3401 4260 5220 5235  
6163 6978 6980 6982 7001 7874 7877 7878 8684 8685  
8686 9570

## DESIGN, MINIMUM WEIGHT

1757 2381 3393 3394 4115 4259 6166 6169 6984 6985  
8687 9567

## DESIGN, OPTIMUM

114 1034 1036 1756 2526 2527 2528 2529 2530 3018  
3390 3391 4261 5224 5226 5236 5787 6168 6983 7680  
7692 7865 8457

## DOMES

3409 7826

## EARTHQUAKE EFFECTS

338 1048 7424 7911 8702 9592 9976

## FILAMENTARY

6999 7658

## FINITE ELEMENT METHODS

172 1695 2330 2405 3406 4146 4258 5244 5853 5865  
5892 6018 6158 6161 6167 6815 6825 7848 7866 7867  
7870 7872 7873 8419 8676 8683 8690 9214 9215 9216  
9217 9218 9222 9223 9224 9562 9565

## INFLATABLE

9029

## LOADS

1049 3403 4137 4273 5237 5238 6178 9221 9432

## MATRIX METHODS

1047 2330 2331 3168 3205 4256 4271 4930 5017 5216  
5218 5841 5891 5918 5921 5935 6157 8679

## MISSILE

198 5089 6527

## MODELS

271 1011 3355 3356 3361 3397 4240 4241 5207 6160  
6852 6858 6959 6960 8648 9529 9539

## MOMENT DISTRIBUTION

1041 2540 9578

## OFF-SHORE

198

## PRESTRESSED

2525 2536 2537 3399 5230 5231 5232 5233 5242 7887  
8692 8693 9575 9576

## RELIABILITY ANALYSIS

1755 2523 6107

## ROOFS

3410 3411 6184 7003 7847 7905 8701 9562 9587

## SAFETY

3388 3389 5251

## STRUCTURES \*CONTINUED\*

SHIP  
4286 4287 4290 5239 6186 6967 6984 7907 9588 9589

SMOKE STACKS  
2546

SPACE VEHICLE  
8556

STATICALLY INDETERMINATE  
314 315 318 324 325 1752 1753 1760 2522 5891  
7868 7893 9579 9581

TESTING  
2504 2505 2534 2541 2542 3408 3414 3900 6181 7773  
7848 7892 9594

WELDED  
270 1002 3400 4238 9564

\*SEE ALSO\*--- ARCHES AND VAULTS -- BRIDGES --  
BUCKLING, STRUCTURES -- COFFERDAMS -- CONCRETE AND  
MASONRY -- CULVERTS --  
DAMS -- DOCKS -- DYNAMICS, STRUCTURES --  
EXPLOSION, EFFECTS ON STRUCTURES -- FAIL-SAFE  
DESIGN -- FATIGUE, STRUCTURES -- FOUNDATIONS --  
FRAMES AND BENTS -- GRILLAGES -- HIGHWAY AND  
RUNWAY CONSTRUCTION -- HYDRAULIC STRUCTURES --  
IMPACT, STRUCTURES -- JOINTS, WELDED -- LIMIT  
DESIGN -- MATERIAL TEST TECHNIQUES,  
NONDESTRUCTIVE -- PIERS -- PILES -- PIPING  
SYSTEMS -- PRESTRESSED CONCRETE -- SANDWICH  
CONSTRUCTION -- SEISMOLOGY -- SPACE VEHICLE  
DESIGN -- TANKS -- THERMOELASTICITY, STRUCTURES --  
TORSION, STRUCTURES -- TOWERS -- TRUSSES --  
TUNNELS -- VIBRATION, STRUCTURES -- WALLS -- WOOD  
STRUCTURES

STRUTS--- \*SEE\* COLUMNS

SUBMARINES  
1418 5247 5248 7004 9590

SUBMERGED BODIES  
9780

\*SEE ALSO\*--- BODIES, COMPRESSIBLE FLOW PAST --  
BODIES, INCOMPRESSIBLE FLOW PAST -- HYDRAULICS,  
DYNAMICS OF LIQUIDS

SUBSONIC FLOW--- \*SEE\* FLOW, COMPRESSIBLE, SUBSONIC

SUBOPTIMAL CONTROL  
1541 1542 2269 3981 3992 6691 7565 9259

SUCTION--- \*SEE\* BOUNDARY LAYER, CONTROL

SUPERFLUIDS  
1078 2602 5284

SUPERPLASTICS  
4056 4964

SUPERSONIC FLOW--- \*SEE\* FLOW, COMPRESSIBLE,  
SUPERSONIC

SURFACE ROUGHNESS--- \*SEE\* FRICTION

SURFACE TENSION  
1973 1974 2609 3445 3448 3474 3477 3678 4340 5299  
6226 6347 6401 6414 7409 8746 8748 8839 8846 8848  
9633 9784

SURGE TANKS--- \*SEE\* TANKS, SURGE

SUSPENSIONS  
377 2608 2618 3446 5271 5292 8193 8217 8219 8762  
8889 9096

## SUSPENSIONS \*CONTINUED\*

\*SEE ALSO\*--- AEROSOLS -- CENTRIFUGATION --  
DISPERSION -- FLOCCULATION --  
SEDIMENTATION -- SEDIMENT TRANSPORT

SWEAT COOLING--- \*SEE\* MASS TRANSFER, SWEAT COOLING

SWIMMING PROPULSION  
1811

SWIRL  
1077 1970

SYSTEMS ENGINEERING--- \*SEE\* AUTOMATIC CONTROL,  
PROCESSES

## T

TABLES  
22 2210 9206

TANKS  
49 1063 7359 8039

SURGE  
1153 3449 9777 9778

TEMPERATURE  
1020 1389 3646 3647 5475 5477 5480 5734 6381 6382  
6383 6384 8901

MEASUREMENT, ABSOLUTE  
500 506 528 529 1246 1953 2099 2760 2764 3650  
4500 4551 5471 5473 8078

MEASUREMENT, DIFFERENCE  
3065

MEASUREMENT, INSTRUMENTS  
530 1933 1953 2761 2762 2766 2804 2805 2976 3367  
3645 4497 4498 4499 5513 5514 6376 6378 6380 6423  
7218 7219 7220 7281 8258 8896 9805

CONTROL  
1961 3065 3066 3069 3968 4545 8359 9235 9511

TRANSFORMATION  
2749 5699

\*SEE ALSO\*--- COATINGS -- HEAT TRANSFER --  
THERMOCOUPLES

TENSOR METHODS--- \*SEE\* VECTOR AND TENSOR METHODS

TESTING  
52 651 652 745 2020 3267 3268 3376 3382 3653  
4642 4644 5618 8354 8662

\*SEE ALSO\*--- COLUMNS, TESTING -- CONCRETE AND  
MASONRY, TESTING -- CREEP, TESTING -- DYNAMICS,  
TESTING -- FATIGUE, TESTING -- FLIGHT TESTING --  
FRACTURE TESTING -- FRAMES AND BENTS, TESTING --  
HARDNESS, TEST TECHNIQUES -- HIGH PRESSURE,  
TESTING -- IMPACT -- JOINTS AND JOINING PROCESSES,  
TESTING -- MATERIALS TEST TECHNIQUES -- REINFORCED  
CONCRETE, TESTS AND TESTING -- SHOCK, TESTING --  
SOIL MECHANICS, TESTING METHODS -- STRUCTURES,  
TESTING -- ULTRASONICS, TESTING -- VIBRATION,  
TESTING

TEXTILES  
7282 8435

THERMAL BUCKLING--- \*SEE\* BUCKLING, THERMAL

## THERMAL SHOCK--- \*SEE\* SHOCK, THERMAL

## THERMOCOUPLES

294 1020 1915 2762 2802 2804 3649 4458 4462 4496  
6380 7281 8897 9804 9805 9806

## THERMODYNAMIC PROCESSES

512 1945 2753 2754 5455

## THERMODYNAMICS

522 1054 1451 1938 1939 1940 1951 2748 2758 2759  
3625 3628 3629 3631 3640 4479 4480 4482 4491 5463  
5464 5467 7205 7214 7215 8029 9463 9796 9797

## CRITICAL PHENOMENA

3626

## CYCLES, ENGINES, TURBINES, ROCKETS

517 1263 4483 6370 8032 8868

## CYCLES, POWER PLANT

5452 5454 9858

## ENTROPY

471 5461 9800

## IRREVERSIBLE

1127 1611 4951 5881 5885 6414 6741 7204 7206 7207  
7633 8097 8420 8421 8886 8887 8889

## NONEQUILIBRIUM

6473 8886 9799

## STATISTICAL

1181 1941 3630 6303

\*SEE ALSO\*--- ABSORPTION -- ADSORPTION --  
AEROTHERMOCHEMISTRY -- AEROTHERMODYNAMICS --  
BOILERS -- CALORIMETER -- CHEMICAL,  
THERMODYNAMICS -- COMPRESSORS -- DIFFUSION,  
THERMAL -- DISSOCIATION -- ENERGY CONVERSION,  
DIRECT -- ENGINES -- FLAME -- FREEZING -- HEAT  
TRANSFER -- JOULE-THOMPSON EFFECT -- KINETIC  
THEORY -- METEOROLOGY, THERMODYNAMICS --  
MIXTURES -- PHASE CHANGES -- POWER PLANTS --  
REFRIGERATION, AIRCONDITIONING -- THERMOPHYSICAL  
PROPERTIES, EQUATIONS OF STATE -- TURBINES AND  
TURBOMACHINERY

## THERMOELASTICITY

99 294 1451 2929 2930 3263 4706 4715 5650 5651  
5653 6542 7391 8203 9071 9072 9073 9958

## ANISOTROPIC AND NONHOMOGENEOUS MEDIA

2933 2941 4718 5631 5655 6545 7390 8197 9074 9080  
9941 9949

## BEAMS

5632 5633

## GENERAL THEORY

682 2928 2937 4710 4717 4954 5643 5656 7391 8201  
8202 9077 9082 9086 9091 9938 9939 9942 9956 9957

## PLATES

1374 2115 2116 2117 3817 3818 4708 5633 5634 5635  
5640 6051 6533 6539 6540 6541 7762 9081 9090 9951  
9955

## SANDWICH CONSTRUCTION

4714 5648

## SHAFTS

4705 4707 6538 7389 9943

## SHELLS

139 4079 4113 5637 5638 5644 5647 6536 6537 7394  
9078

## STRUCTURES

2118 2122 2123 2931 2932 4716 5641 5642 6534 6535  
7395 7397 9076 9083 9214 9215 9216 9217 9218 9940

## THERMOELASTICITY \*CONTINUED\*

## THREE-DIMENSIONAL

3819 8198

## TWO-DIMENSIONAL

7393 8200 9079

## TRANSIENT EFFECTS

683 2120 2121 2124 2440 2935 2936 2938 2939 2940  
3270 3820 4709 4711 4712 4713 5652 6038 6051 6531  
6543 7392 7393 7396 7762 7791 7793 8199 8204 8205  
9075 9084 9085 9087 9088 9092 9950 9954 9959

## THERMOELECTRIC PHENOMENA

1203 1254 2801 4495 4545 6375

## POWER GENERATION

1184 3632

## PROPERTIES

1195

## \*SEE ALSO\*--- THERMOCOUPLES

## THERMOPHYSICAL PROPERTIES

524 526 1189 1191 2013 2757 2759 3626 3627 4490  
4491 4492 5464 5465 5466 5470 6554 7210 8082 9803

## DIFFUSION COEFFICIENT

5734 6385

## EQUATIONS OF STATE

525 1193 1197 1836 3643 4489 4494 7213 7987 8890  
8891 8894

## PRANDTL NUMBER

7211

## RADIATIVE

3648 6409 6410 6411 8075 8924 8925

## SPECIFIC HEAT

1199 1955 7216

## THERMAL CONDUCTIVITY

567 1192 1196 1199 1200 1201 1202 1205 1207 1950  
1952 1954 2768 2769 3636 3638 3641 3642 3644 3654  
3655 5459 5476 5499 5512 6373 6374 6385 7211 7212  
7223 7281 7382 8031 8035 8306 8892 8895 8902 9160  
9802

## THERMAL CONTACT RESISTANCE

9802

## THERMAL DIFFUSION COEFFICIENT

5734

## THERMAL DIFFUSIVITY

1245 3651 4501 5469 6379 9802

## THERMAL EXPANSION

6094 7213 8898

## VISCOSITY

1188 2756 3637 7212 8902

## THERMOPLASTICITY

259 8667

## THIN FILMS, FLOW

3445 3512 3617 6217 6253 6288 7029 7070 7084 8798  
8837 8850

## THRUST

## CONTROL

2835 4881

## NOZZLE

4577

## THRUST \*CONTINUED\*

TRAJECTORY  
1334THRUSTER  
3754 5557 8933

TIDAL WAVES--- \*SEE\* GRAVITY WAVES IN LIQUIDS, TIDAL

## TIDES

715 2708 2715 3451 3453 3455 3577 3849 5689 6561  
6562 6563 8244 8256TIMBER CONNECTIONS--- \*SEE\* JOINTS AND JOINING  
PROCESSES

## TIME DELAY SYSTEMS

826 843 1518 1525 1539 1926 2260 3057 3966 4686  
4866 4890 5796 5798 5826 6049 6658 7382 7546 8341  
8373TIME SHARING TECHNIQUES  
5833

## TIRES

110 638 912 3190

## TITANIUM

877 1422 1607 1738 4247 7919 9611

## TOOLS

5176 5256 5783

## CARBIDES

3316 6923 9510

## LIFE

266 996 4782 4783 5175 5178 9510

## STRENGTH

266 2467 4216

\*SEE ALSO\*--- VIBRATION, TOOLS

## TOPOLOGICAL TECHNIQUES

42 765 784 786 790 1469 1511 2197 3884 3901  
3902 3938 4906 6604 6627 9145

## TORSION

4858 5860 6718 7520 8662 8663 9307 9309 9337

## BEAMS

107 873 885 1614 2322 2535 3122 3158 4047 4966  
4987 5759 8451 8700 9331 9332

## PLASTIC

885 2328 2346 4047 4048 4049 4966 5896 7652 9331  
9332

## PLATES

5871 6989 9308

## SHAFTS

122 2502 3113 3119 3120 3121 5257 6720 7611 7612  
7613 7614 7615 7750 9341 9586

## SHELLS

146 1583 3189 4031 4077 4108 4952 4985 7652

## STRUCTURES

3188 4019 4945 6719 7894

\*SEE ALSO\*--- MATERIALS, TEST TECHNIQUES, TORSION

## TORQUE CONVERTER

2550 7014

## TOWERS

3403 4141 8695

## TRAFFICABILITY

663 3280 3284 3412 8595 9202

\*SEE ALSO\*--- HIGHWAY AND RUNWAY  
CONSTRUCTION -- VEHICLES, LAND

TRAJECTORY--- \*SEE\* UNDER MODIFIER

## TRANSDUCERS

2101 2285 2422 3256 3375 3382 3614 5134 6844 8387  
9460 9936

## DISPLACEMENT

1936 2739 3372 3405 7476 8674

## PRESSURE

241 1351 1898 2113 2114 3383 3613 4249 4250 4703  
6975 9171

## STRAIN

292 293 295 1019 1742 1743 2507 2509 2512 3370  
3371 4244 6049 6135 6136 6352 6965 8657 9171 9542  
9543 9544 9548 9560

\*SEE ALSO\*--- PIEZOELECTRICS

TRANSFORMS--- \*SEE\* OPERATIONAL METHODS

TRANSONIC FLOW--- \*SEE\* FLOW, COMPRESSIBLE,  
TRANSONICTRANSPIRATION COOLING--- \*SEE\* MASS TRANSFER, SWEAT  
COOLING

TRANSPORT OF DUST--- \*SEE\* DUST, TRANSPORT

TRANSPORT PROPERTIES--- \*SEE\* THERMOPHYSICAL  
PROPERTIES

TRANSPORTATION--- \*SEE\* UNDER MODIFIER

## TRUSSES

1034 5087 5789 7878 7888 7890 7893 9577

TSUNAMI WAVES--- \*SEE\* GRAVITY WAVES IN LIQUIDS,  
TSUNAMI

## TUBE SHEETS

2566

TUBES--- \*SEE\* PIPES AND TUBES

## TUNNELS

335 5422 7157 7447 8699

## TURBINES AND TURBOMACHINERY

444 797 1937 2021 2725 3384 3740 4028 6451 6452  
7523 8069 8106 8109 8774 8866 9660

## AXIAL

1162 1918 2834 3602 4440 5442 5443 9789

## BLADE COOLING

5484 7232

## BLADES

1670 2565 2887 4129 6247 6450 7639 9324 9446 9854

## CASCADE OF BLADES, COMPRESSIBLE

479 1920 3598 4437 4438 8021 8865 9786 9789 9790  
9849 9850

## CASCADE OF BLADES, INCOMPRESSIBLE

482 1924 4439 6350 8021

## FATIGUE

490 3599 4441 4442 7182 7185

## FLOW CHARACTERISTICS, COMPRESSIBLE

2727 3441 5442 5446 6349 6352 7183 8024 8865 8868  
9790 9791 9849 9850



## TURBINES AND TURBOMACHINERY \*CONTINUED\*

## GAS

1538 2024 2751 3745 3746 4447 4486 4909 5513 5535  
5546 5547 5548 5549 5550 6441 7183 8107 8108 8868  
9852 9855

## HYDRAULIC

484 946 1506 2736 4441 4442 7182 8023 8866 9793

## MIXED

4443 6351 8022

## MODELS

1924

## NOZZLES

6349 9791

## RADIAL

4439 6351 9723

## ROTORS

5996 5997 5998 7183 8867 9324 9442 9792 9848

## STEAM

3598 3741 4438 4544 4573 4574 4886 5456 5541 8024  
8105 9848

\*SEE ALSO\*--- CAVITATION, TURBINES --  
COMPRESSORS -- FLOW, INTERNAL -- FLUTTER,  
TURBOMACHINES -- HEAT TRANSFER -- VIBRATION,  
BLADES -- VIBRATION, TURBOMACHINERY

TURBOJETS---\*SEE\* JET ENGINES, TURBOJET

TURBOPROPS---\*SEE\* JET ENGINES, TURBOPROPS

## TURBULENCE

720 1127 1129 2598 2673 2674 3094 3557 4453 4472  
6286 6289 6358 7149 7152 8006 8007 8080 8169 9053  
9456 9731 9732

## ANISOTROPIC

4421

## DIFFUSION

461 463 1377 2678 2679 3554 3556 3667 4345 7143  
7145 8153

## FREE TURBULENCE

459 461 1131 2680 3555 3558 3706 4422 6291 6359  
9735

## FRICTION REDUCING ADDITIVES

445 4412

## HOMOGENEOUS

8812 9728

## ISOTROPIC

455 457 2675 2677 5401 9007 9617

## MAGNETIC

537 5573 6291 6468 8998

## MEASUREMENTS

454 458 460 464 1133 2148 2655 2684 2688 2977  
3556 3558 4421 4422 4424 4764 5305 5402 5403 6277  
6290 6308 7086 7153 7430 7437 7956 8011 8123 8257  
8814 9126 9712 9720 9741 9984

## MEASUREMENTS IN WATER

1399 2686 2687 4759 7147 7150 8010

## MIXING LENGTH THEORY

438 1126 1130 1132 2656 3543 3559 6295 6306 6393  
7143 8008 8009 8803 8804 9733 9734 9739

## STATISTICAL THEORY

455 456 1128 2041 2675 2676 4420 4768 5401 6304  
6305 7146 7319 8250 8812 9728 9729 9736 9738 9822

## TURBULENCE \*CONTINUED\*

## STATISTICAL THEORY \*CONTINUED\*

9877 9986

## TRANSPORT

1377 8057 9734

## JULY FEATURE ARTICLE

## WALL TURBULENCE

1132 1133 1864 2655 2663 2664 2681 2682 2716 4418  
4419 4423 5394 5395 6290 6292 6305 6428 6461 7784  
8813 9712 9730 9737 9740

\*SEE ALSO\*--- ANEMOMETER, HOT-WIRE -- BOUNDARY  
LAYER, TRANSITION -- FLAME, TURBULENT -- HEAT  
TRANSFER, TURBULENT -- METEOROLOGY, TURBULENCE --  
MIXING -- WAKES, TURBULENT

## TURNING

996 3316 7825 9511

TWISTING OF SHAFTS---\*SEE\* TORSION, SHAFTS

TWO-PHASE FLOW---\*SEE\* UNDER MODIFIER

## U

## ULTRASONICS

679 680 961 1365 1366 1367 1368 1442 1709 2108  
2112 2433 2921 2922 2923 2926 3263 3317 4541 4686  
4697 4698 4699 5733 6091 7213 7380 7381 7382 7383  
7384 7385 8196 9064 9068 9070 9929 9930 9931 9932  
9933 9934

## INSPECTION

277 5737 6154 6526 9069 9558 10007

## TESTING

359 1028 1032 1800 2342 2444 4252 4253 6156 6874  
8185 8671 9069

## UNSTEADY FLOW

3618 5439 7042 9745 9747

## COMPRESSIBLE

596 1900 3532 3563 4387 4388 4389 4390 4392 5326  
5350 5362 5363 6279 6312 7120 7121 7192 8784 8788  
8818 9752 9753

## INCOMPRESSIBLE

398 399 400 1097 1156 1173 2616 2701 2707 3510  
3561 3596 4314 4343 4347 4348 4357 4450 4458 5268  
5312 5314 5315 5440 5710 6214 6218 6259 6333 7059  
7076 7083 7085 7922 7956 8271 8272 8771 8821 9141  
9618 9643 9645 9650 9651 9653 9654 9656 9785

## SUBSONIC

8013

## SUPERSONIC

4470 9789

## TRANSONIC

2695 7155

\*SEE ALSO\*--- OSCILLATIONS IN FLUIDS

UPWASH AND DOWNWASH---\*SEE\* WINGS, UPWASH AND  
DOWNWASH

## V

## VACUUM TECHNOLOGY

733 1164 1422 2175 3866 3883 4473 6365 6578 7448  
9144

VALVES AND GATES  
2595 2596 2634 3463 4886 6233 6235 7038 7051 7053  
7938 9437

HYDRAULIC  
394 475 4434 6341 8870

MECHANICAL DESIGN  
1165 2881 4573 5255

VARIATIONAL METHODS  
3 538 779 780 859 860 1464 1470 1472 1558  
2188 2189 2195 2999 3915 3929 4502 4505 4640 4823  
4838 4839 4849 4850 6390 6638 7225 7228 7229 7500  
7502 8042 8383 9272

AERODYNAMICS  
3083 4896 6690 8013 8815 8825 9746 9759

AUTOMATIC CONTROL  
59 61 844 1518 1525 1527 1529 2262 2270 3077  
3083 3988 3990 3992 4891 4908 5830 6681 8377 9261

ELASTICITY  
172 180 6816 6830 7642 9189 9205

FLUID MECHANICS  
377 2711 2974 3489 3584 7228 7243

PLASTICITY  
3144 4047 4049 4972 4979 6740 7642 8428 8447

SOLID MECHANICS  
1555 8387

VISCOELASTICITY  
2320 2322 2326 4317 5882 6724 9326

VAULTS--- \*SEE\* ARCHES AND VAULTS

VECTOR AND TENSOR METHODS  
2 115 858 1451 2179 2184 3088 3148 3153 3903  
3905 4014 4823 5905 6740 6746 7924 7929 8430 9609

\*SEE ALSO\*--- MATRIX METHODS

VEHICLES  
5236 7013 7157 8976

AMPHIBIOUS  
2160

AUTOMOTIVE  
74 1562 2249 3353 3429 5137 5549 5794 6147 6672  
7577 7578 7920

LAND  
1145 1504 1550 2020 6068 8298 8973

MOTION AND CONTROL  
2280 2281 3246 4860 7447 7576 7579

PNEUMATIC  
7346 7447 8880 8881

RAILWAY TRAINS  
2280 2281 3341 3430 3605 4007 5092 5125 5422 5836  
6017 6849 8548 8549 9435 9436 9480 9596

STABILITY  
74 1504 2280 3593 4916 5092 5744 6017 7578

\*SEE ALSO\*--- AIRPLANE -- GROUND EFFECT  
MACHINES -- IMPACT, VEHICLES -- MARINE  
ENGINEERING -- PERFORMANCE, VEHICLES -- RAILROAD  
SYSTEMS -- SPACE VEHICLES, WITH MODIFIERS --  
SUBMARINES -- TIRES -- VIBRATION, VEHICLES

VELOCITY MEASUREMENT  
501 511 1167 1168 1172 1935 2422 2426 2687 3616  
3955 4456 4457 4458 4459 4465 4471 4657 5134 5473  
5833 6357 6359 6524 8158 8159 8871 8872 8873 8875

VELOCITY MEASUREMENT \*CONTINUED\*  
8878 8879

VIBRATION  
2188 2214 3216 4658 5072 6692 6693 7884 8012 9567

ABSORPTION  
5103 5112 6020 6809 6866 8553 9445 9449

ACCELERATION THROUGH RESONANCE  
5984 5998

AIRPLANES  
201 202 203 2888 4154 4246 5088 6527 6848 6851  
8160 8161 8164 8552 8556 9025 9026 9891

ALMOST PERIODIC  
167 170 1664 3227 4003 5075 6802 6803 9406  
MARCH FEATURE ARTICLE

ANALYSIS  
72 168 169 171 186 191 926 927 938 965  
1659 3095 3103 3218 3223 4004 4118 4121 4144 5076  
5082 5091 5095 5100 5105 5106 5984 5985 5986 5992  
5999 6014 6019 6021 6024 6029 6793 6795 6796 6797  
6799 6800 6802 6803 6806 6808 6823 7581 7749 7752  
7755 7756 7758 8388 8535 8544 8559 9221 9406 9412  
9419 9430 9458  
MARCH FEATURE ARTICLE

AUTONOMOUS SYSTEMS  
75 4912 6808 7753 7754

BALANCING  
182 184 3234 4128 5997 6854 7581

BEAMS, ELASTIC FOUNDATIONS  
183 285 2215 5076 5708 5789 6817 9420

BEAMS, FLEXURAL  
174 175 176 177 179 181 190 199 209 330  
930 931 932 943 952 1600 1664 1670 1672 1688  
1762 2398 2402 2403 2404 3216 3229 3230 3231 3250  
3269 4120 4124 4125 4127 4137 4148 4174 5094 5096  
5121 5128 5132 5992 5993 5995 6012 6016 6027 6029  
6813 6814 6816 6833 6842 6856 6858 6896 6983 7756  
7758 7759 7760 7761 7765 8182 8533 8534 8535 8536  
8540 8544 8547 8553 8557 8560 9414 9415 9429

BEAMS, LONGITUDINAL  
178 1665 1666 1694 1703 2287 3216 4146 5078 5132  
6798 8567 9431 9468

BEAMS, TORSIONAL  
174 180 3232 3242 6793 6798 6817 7750 7759

BEARINGS  
934 1667 5708 5996 5997 5999 7774 8537 8552 8561  
9442

BLADES  
190 946 1319 1670 1679 1885 2887 3244 4129 4451  
6012 6817 6821 6826 6864 7765 8550 8557 9445 9446  
9457

BRIDGES  
3245 4135 4136 5606

CABLES AND STRINGS  
167 175 1687 1704 2428 3229 4120 4123 4126 5076  
5081 5096 5988 6810 6811 6812 7751 7760 8530 9411  
9413 9439

DAMPING  
177 183 188 208 210 211 212 215 930 948  
949 950 1660 1666 1679 1682 1683 1684 2406 2416  
2418 2423 3216 3236 3248 3249 3253 4149 4150 4151  
4152 5079 5094 5095 5096 5097 5098 5099 5100 5101  
5102 5103 5105 5112 5121 5839 6020 6809 6832 6860  
6861 6862 6863 6864 6865 7775 8160 8161 8164 8534  
8536 8537 8553 8554 8555 9416 9425 9445 9446 9447  
9449 9451 9459 9891

Review Numbers:	1-764	765-1450	1451-2178	2179-2991	2992-3900	3901-4817	4818-5750	5751-6601	6602-7476	7477-8309	8310-9172	9173-10008
Issue:	January	February	March	April	May	June	July	August	September	October	November	December

## VIBRATION \*CONTINUED\*

## ENGINES

5111 6819 6826 8552 9401 9438

## FINITE AMPLITUDE

1455 5109 6001 6002 7757 7763 9413

## FLUID

188 203 927 946 1671 1672 2185 2722 2997 4431  
4839 4849 5073 5074 5077 5437 5439 5605 7510 8842  
8861 9433 9765 9766 9779 9783

## FOUNDATIONS

934 942 3413 6013 6015 6846 6859 6895 7773 9411  
9431 9440

## FREQUENCIES, BEAMS

179 190 197 199 2403 3231 3242 4124 4127 6014  
6798 6813 7757 8533 9401

## FREQUENCIES, MEMBRANES

2400 5989 5991 6000 8532

## FREQUENCIES, SHELLS AND PLATES

186 187 192 941 1673 1675 1676 1678 2400 2409  
2410 3239 4132 4134 6000 6005 6006 6008 6010 6825  
6829 6834 6836 7762 7768 7769 7771 8543 8546 9422  
9423 9424 9428

## GEARS

73 1677 1773 4301 6857 8724

## GRILLAGES

164 187 932 2414 9434

## HELICOPTERS

1679 1685 3244 4451 4615 8550 8557 9401 9457 9898

## HUMAN

2981 2989 4810 5730 7466 9158

## IMPEDANCE METHODS

974 2419 2420 2425 3254 3890 4138 4300 5098 5730  
6023 6027 6527 6857 6874 6878 7377 7773 8182

## IMPULSIVE LOADING

945 974 975 1661 1665 1671 1696 1703 1704 2435  
2438 3216 3222 4117 4119 4137 4142 4174 4181 5071  
5117 5118 5122 5125 5128 5132 5983 6025 6046 6047  
6522 6831 6884 6896 6897 6898 7766 7786 8541 8567  
9401 9405 9417 9431 9444

## ISOLATION

1685 1686 3216 3226 5101 5102 5112 5995 6006 6847  
6850 6859 6865 7014 7775 9433 9445 9448 9450 9451

## LUMPED SYSTEMS

178 179 926 936 948 1660 1666 1682 1683 2398  
2437 3216 3227 4139 4147 4148 5084 5085 5841 5985  
6793 6812 6852 9401 9462

## MACHINES

73 214 946 1769 2413 2416 4143 4147 4149 4301  
4673 5073 5074 6846 6854 6858 8725 9437 9441

## MAGNETOSTRICTION

1060 2441 3217 3232

## MEASUREMENTS AND INSTRUMENTATION

179 182 192 197 209 216 217 218 341 937  
942 944 952 1600 1677 1683 1685 1690 1691 1692  
1694 2285 2418 2420 2422 2425 2426 3071 3224 3229  
3231 3245 3249 3255 3900 4156 4157 5088 5090 5091  
5092 5093 5095 5097 5099 5100 5101 5103 5111 5113  
5129 5134 5817 5993 5998 6006 6007 6019 6026 6815  
6818 6821 6844 6849 6852 6860 6861 6865 6896 7758  
7768 7773 7774 7779 8529 8538 8540 8553 8557 8863  
9445 9460 9462

MARCH FEATURE ARTICLE

## VIBRATION \*CONTINUED\*

## MEMBRANE

173 928 2401 4120 5989 5990 5991 6000 6841 7763  
8300 8531 8532 9023

## MISSILES AND ROCKETS

203 1320 1341 1342 1344 2402 5089 6019 6850 6852  
8551 9401 9478

## MODES

164 166 176 192 197 202 216 222 926 947  
1659 1660 1672 1673 1691 1694 2213 2402 2409 2412  
3235 3240 3244 4120 4140 4141 4169 5080 5084 5091  
5605 5986 5987 5989 6802 6803 6812 6823 6824 6825  
6827 6836 6842 6853 7758 7761 7765 7770 8530 8540  
8541 8551 9401 9404 9415 9434 9453

## MOVING LOADS

1672 1698 1702 2430 2437 3239 3245 4008 4135 4139  
4180 5124 5988 6011 6012 6016 6033 6034 6882 6895  
8533 9401 9411 9413

## MULTIPLE DEGREE OF FREEDOM SYSTEMS

212 217 4004 4117 4118 4141 4143 4144 4147 5086  
5098 5104 5112 5839 6012 6022 6871 7752 8388 8538  
8558 8562 9407 9441 9458

## MARCH FEATURE ARTICLE

## NONLINEAR

168 169 170 195 211 341 929 935 973 1663  
1664 1684 2417 2997 3099 3220 3221 3222 3224 3225  
3226 3227 3252 4006 4122 4143 4639 5075 5076 5104  
5108 5109 5753 5987 5993 6001 6002 6004 6013 6048  
6605 6606 6607 6611 6801 6802 6803 6805 6808 6809  
6810 6824 6871 7525 7751 7752 7753 7757 7767 7776  
8310 8528 8529 8532 8561 8702 8724 9401 9406 9407  
9408 9409 9410 9411 9412 9414 9416 9421 9422 9424  
9445 9447

## MARCH FEATURE ARTICLE

## NONLINEAR, COMPLEX SYSTEMS

1661 1662 3908 8162

## NONLINEAR, FORCED

948 950 951 1661 1687 2399 3219 3222 5987 5999  
6620 6800 6804 6807 8312 9405 9440 9459

## ORTHOTROPIC STRUCTURES

940 1674 1675 1688 2407 2410 4130 5094 5986 5993  
5994 6814 6828 6832 6837 6839 8534 8545 8547 9401  
9426 9445 9453

## PENDULUMS

1530 1663 4006 4901 4911 4915 6801 9408 9412

## PIEZOELECTRIC DEVICES

207 947 952 2408 3260 6026 8572 9443 9444 9470

## PLATES

186 188 191 192 202 222 935 936 937 943  
947 1351 1671 1697 1698 1762 2100 2400 2405 2406  
2407 2408 2415 2437 2885 3235 3236 3237 3238 3239  
3250 3260 4008 4120 4130 4131 4169 4181 5080 5081  
5082 5107 5118 5119 5122 5605 6000 6001 6002 6004  
6006 6011 6023 6507 6815 6823 6824 6825 6827 6828  
6829 6830 6832 6873 6884 7337 7762 7764 7767 7768  
7777 7779 8539 8541 8542 8543 8547 9022 9403 9417  
9418 9419 9420 9421 9422 9456 9783

## PLATES ON ELASTIC FOUNDATIONS

174 3236 3238 5982 6035 6822 6831 6898

## PLATES, SANDWICH

2411 4130 4152 5604 7775 9401 9401 9423 9445 9453

## PLATES, STIFFENED

187 2415 6003 8542 9401

## RANDOM

213 950 951 1664 1687 2402 2421 3250 4153 5092  
5104 5105 5106 5108 6022 6835 6850 6866 6867 6869

VIBRATION \*CONTINUED\*  
RANDOM \*CONTINUED\*

6875 7776 7777 8556 8558 8559 9401 9454 9455 9456

## RINGS

939 2438 3240 4145 4146 6047 7766

## ROTATING DISKS

173 182 185 189 1668 2441 3233 3234 4145 4146  
5079 5081 6820 6821 7763 7764 9442

## SELF EXCITED

167 171 185 193 198 214 661 1667 1672 2065  
2282 2915 3253 4009 4117 4122 4126 4140 4772 5076  
5077 5606 5842 5843 5996 6085 6811 6855 6860 7337  
8561 8709 9021 9023 9025 9891

## SHAFTS

182 183 184 185 189 204 214 933 934 1667  
1668 2413 3233 5079 5081 5996 5997 5998 5999 6012  
6014 6794 6818 6819 6820 6855 6856 6861 7750 7774  
8537 8538 8561 9416 9440 9457

## SHELLS

2409 3243 4120 4134 5109 5605 5990 6010 6011 6048  
6835 6840 9029 9401 9424 9429 9430

## SHELLS, CONICAL

166 477 1677 2410 2419 6005 6838 9021

## SHELLS, CYLINDRICAL

111 165 193 195 198 938 1673 1674 1675 1676  
1678 1689 1912 2410 2415 2419 2430 3254 4132 4133  
5077 5091 5602 5994 6007 6008 6032 6033 6034 6511  
6522 6834 6836 6837 6839 6841 6882 6890 6897 7175  
7375 7769 7770 7786 8544 8545 8546 8861 9428 9433

## SHELLS, SANDWICH

194 1676 3243 7771 8545 9425

## SHELLS, SPHERICAL

941 2429 2918 6522 7176 7771 7772 7773 8857 9426  
9427 9779

## SHELLS, STIFFENED

1674 1689 5091 6008

## SHIP HULLS

945 2158 2411 2412 3247 4286 5090 6018 6073 6877

## SINGLE DEGREE OF FREEDOM SYSTEMS

2399 2417 3221 3224 3225 3234 3249 3250 4117 4119  
4143 4149 4153 5098 5106 5983 6022 6698 6794 6797  
6800 6804 6805 6863 6866 8559 9405 9447  
MARCH FEATURE ARTICLE

## SOIL

249 983 1718 2458 3283 4191 4194 8580 8585 9494

## SPECTRAL DENSITY

950 1444 2415 2424 6875 7014 7776 7777 8191 8558  
9025 9401

## SPRINGS

341 1686 1696 4300

## STABILITY

54 171 205 207 212 215 827 1379 1662 1663  
1667 1679 1689 2282 2287 2399 2416 2886 3222 3248  
3252 3253 4009 4912 4913 5077 5132 5437 5602 5843  
5983 5987 5996 6303 6815 6863 6868 6870 6871 6872  
6873 7754 7778 7786 8162 8164 8527 8538 8560 8562  
8709 8724 9021 9022 9023 9025 9407 9408 9409 9411  
9428 9436 9437 9438 9450 9454 9455 9457 9459 9891  
MARCH FEATURE ARTICLE

## STRUCTURES

164 201 202 205 208 211 325 328 932 942  
943 944 2403 2416 2546 3250 4137 4138 4141 4154  
4291 4292 4293 4294 4434 5081 5083 5084 5087 5093  
5097 6009 6012 6843 6862 9401 9404 9432 9434 9445  
9593

## VIBRATION \*CONTINUED\*

## STRUCTURES, BRIDGES

4135 4136

## STRUCTURES, BUILDINGS

327 329 1048 2065 3413 3414 4142 4151 4274 5107  
6845 6994 7007 7899 7911

## STRUCTURES, ELASTIC FOUNDATIONS

942 5086 7005 7006

## TESTING

653 827 4129 4140 4144 4151 4154 5089 5091 5113  
5984 6222 6876 6877 6878 9431 9461 9462

## THERMALLY EXCITED

3270 5123 6007 6026 6038 7764 7793 8568 9429

## TIME DEPENDENT BOUNDARY CONDITIONS

165 972 6796 6842 9419

MARCH FEATURE ARTICLE

## TOOLS

205 206 263 997 998 1682 2161 2287 2468 3314  
6085 6086 6087 6858

## TORSIONAL

165 166 172 925 940 947 1060 1662 1683 2065  
2325 2412 3071 3221 3232 3241 3242 4145 4146 4147  
4301 5071 5750 5994 6793 6794 6819 6822 6837 6838  
6857 7750 9402

## TURBOMACHINERY

190 946 1670 2100 4129 5996 6012 6820 6826 6864  
7014 7183 8552 9401 9442 9446

## VEHICLES

1562 4117 4135 4143 5092 5137 6017 6849 7579 8548  
8549 9435 9436 9480

## VISCOELASTIC

111 211 949 1600 1665 1911 2325 2441 4039 5073  
5074 5122 6020 6047 6814 6832 6840 6859 6862 6865  
7635 7766 7770 7775 9416 9425\*SEE ALSO\*--- ACOUSTICS -- AUTOMATIC CONTROL --  
DAMPING CAPACITY OF MATERIALS -- FLUTTER --  
IMPACT -- IMPEDANCE METHODS -- SHOCK WAVES IN  
SOLIDS -- VIRTUAL MASS -- WAVES

## VIRTUAL MASS

188 1911 4133 4346 5291 5438 8263 8264 9139

## VIRTUAL WORK METHODS

114 4049 5906

## VISCOELASTIC WAVES--- \*SEE\* WAVES, VISCOELASTIC

## VISCOELASTICITY

1431 1451 1601 4226 4276 5184 6725 8422 8625 9521  
9760

## CONSTITUTIVE EQUATIONS

105 1796 2326 4035 4951 4960 5878 5881 5885 6741  
7630 7638 8301 8419 8421 8424

## DYNAMIC PROPERTIES

105 111 209 210 230 231 1594 3440 4036 4037  
4313 4951 5879 5880 5881 5886 6732 6920 7630 7632  
7633 7634 8419 8421 8424 8426 9320 9327 9329 9620

## EXPERIMENTS

108 231 750 1060 1796 4038 4039 5208 7027 10000

## FLOW

351 356 551 2136 2572 2575 3436 3440 4311 4313  
6216 6218 6219 7922 7923 7926 9620

## FINITE DEFORMATIONS

873 4035 4861 5878 5885



## VISCOELASTICITY \*CONTINUED\*

## MECHANISM

106 2320 2324 4036 4045 5880 5886 6723 7628 7631  
7634 7638 7654 8419 9320 9328

## MOLECULAR THEORY

2577 4046 5887 6734 7027 7635 8423

\*SEE ALSO\*--- CONTINUUM MECHANICS, CONSTITUTIVE  
EQUATIONS -- CREEP -- DISLOCATION THEORY --  
VARIATIONAL METHODS, VISCOELASTICITY --  
VIBRATION, VISCOELASTIC -- VISCOPLASTICITY --  
WAVES, VISCOELASTIC

## VISCOPLASTICITY

259 4181 4316 4317 4960 5264 5268 5750 5894 6214  
6741 7652 7654 9329 9505

\*SEE ALSO\*--- WAVES, VISCOPLASTIC

## VISCOSITY

359 1059 1795 3446 4785 5451 6223 7030 7472

## MEASUREMENTS

755 756 757 760 1058 1439 1797 1798 2607 2740  
2775 3439 3445 3893 4467 5450 6224 6240 6368 7028  
9652

## METER

354 358 1061 1176 1797 3439 3445 5269 5271 7195

\*SEE ALSO\*--- GRAVITY WAVES IN LIQUIDS,  
VISCOS EFFECTS -- ROTATING CYLINDERS, FLOW  
BETWEEN -- THERMOPHYSICAL PROPERTIES,  
VISCOSITY

VISCOUS FLOW--- \*SEE\* FLOW, INCOMPRESSIBLE, VISCOS

## VORTEX FLOW

392 397 1074 1075 1076 1129 1135 1137 1817 1875  
2602 2603 2604 3442 3483 3484 3485 3486 3487 3491  
4356 5438 6258 8084 8756 9643 9645 9649 9651 9656  
9659 9677 9707 9748 9749 9755

## SHEETS

1076 5423 6311

## STREETS

1096 5305 6257

## VTOL

639 640 641 642 4622 4624 4625 4626 4627 4628  
5423 5424 6481 6484 6485 6486 7345 7347 9896 9898  
9899

\*SEE ALSO\*--- GROUND EFFECT MACHINES -- HYDROFOILS,  
CRAFT -- STOL

## W

## WAKES

1094 2612 3525 4379 4384 5340 6257 8010 8093

## BASE FLOW

1101 1829 1852 2638 4374 5327 6267 7972 9666 9667

## BASE PRESSURE

404 1096 1107

## HYPERSONIC

2625 9915

## LAMINAR

435 5373 6287 7242

## MEASUREMENTS

402 1096 1143 1935 3558 5402 6307 6362 9683

## WAKES \*CONTINUED\*

## THEORY

5405 5608 8155

## TURBULENT

401 1844 2641 3558 4364 4386 4422 4553 4617 5332  
5402 6307 8757 8811 8822 9915

\*SEE ALSO\*--- FREE BOUNDARY, WAKES

WALL JETS--- \*SEE\* JETS, WALL

## WALLS

2531 3408 4273 4278 4294 5244 6182 7002 7900 7901  
7904

\*SEE ALSO\*--- CONCRETE AND MASONRY, WALLS

## WATER HAMMER

360 474 1155 1157 1908 1909 3590 3592 4432 6093  
6341 6342 6343 6924 8853 8854 8855 8856 9777 9778

WATERWAYS--- \*SEE\* CANALS

## WAVES

2151 2591 2967 3450 6128 6870 7780  
JANUARY FEATURE ARTICLE

## ACOUSTIC

207 711 1358 1364 1896 1897 1898 2037 2100 2102  
2106 2850 2920 3575 4679 4680 4704 5571 5682 7175  
7367 7420 8027 8836 8857 9766 9769 9783

## ANELASTIC

977 3262 4170

## ATMOSPHERIC

468 4765 7435 9988

## ATTENUATION

954 956 957 970 1361 1681 2432 3262 8845 9775  
9776

## BLAST

255 427 2104 3259 7797 8860 9476 9676 9916

## CABLES AND STRINGS

238 1704 2428 7783 7795 9439

## CAPILLARY

4429 5428 6338 7410 8833 9770

## COMPRESSIONAL

223 230 474 957 1699 2433 2718 2922 4163 6341  
8835 8854 8855 8856 9467 9775 9776

## DETONATION

1154 2094 2901 2907 3814 4563 4596 4652 5620 5621  
5622 6464 7296 9913

## DIFFRACTION

416 473 1699 2431 2433 3261 4161 5114 6329 6337  
7168 7787 7789 7792 8331 9471

## DISPERSION

465 1152 2710 3263 3576 3579 3584 4169 4176 5096  
6035 6043 6044 6894 6901 7171 8563 8568 8832 8995  
9474

## DOPPLER EFFECT

1693

## EFFECT ON FLOATING BODIES

3581 8265 9782

## EFFECT ON SHIPS

9139

## ELASTIC

955 957 960 962 963 967 1693 1696 1700 2183  
2436 3261 4176 5126 5130 6887 7791



## WAVES \*CONTINUED\*

## ELASTIC, BARS AND BEAMS

220 225 229 235 955 956 1695 1703 1708 3258  
3259 4164 4165 4166 5120 6025 6026 6027 6028 6029  
6030 6031 6039 6886 6887 6900 6901 7383 7785 8567  
8571 9465 9466 9467 9468 9469

## ELASTIC, PLATES AND SHELLS

221 222 235 659 958 959 1695 1697 1698 2100  
2909 2910 4167 5080 5117 5119 5124 6032 6035 6883  
8188 8569 8570

## ELASTIC, SEMI-INFINITE MEDIUM

226 925 6035 6037 6898 7782 7793 7797 8569 9121  
9464 9471 9472 9977

## ELASTIC, SPHERES

6881 6888

## ELASTOPLASTIC

1702 3265 3269 3283 4180 4182 5123 5135 6040 6041  
6048 6051 6887 6888 6889 8566 8569 9119 9120

## ELECTROMAGNETIC

225 473 674 1178 4595 4606 7328 7329 8565 9009  
9011 9022 9464 9871

## FINITE AMPLITUDE

229 976 1697 1709 2039 3578 5127 6051 6465 6887  
7781 9467 9929 9930

## FLUID

959 5732 5771 6588 7469 7784 7792 8183

## GENERATIONS

1268 1393 1396 3581 5427 5686 6334 7172 7312

## GRANULAR MEDIA

4180

## INCLUSIONS, INHOMOGENEITIES, CAVITIES

226 227 228 958 962 963 965 968 1681 1699  
1700 2431 2433 4680 5114 6036 6522 6885 6890 7173  
7787 7788 7789

## INFINITE MEDIUM

224 227 228 960 3261 4177 5114 5124 7788 7789  
8572

## INTERACTION

221 236 237 958 959 977 1152 2849 4159 4160  
4426 6331 6887 6889 6894 7469 7787 7789 7792 8835  
8836 8838 8857

## LAYERED MEDIA

233 235 236 448 706 970 971 1150 1286 1904  
2427 2923 3258 3266 3583 4178 4179 4426 5115 5133  
6045 6046 6892 6894 7168

## LIQUID FILMS

472 1902 1905 2717 5426 5430 5434 5520

## MAGNETOELASTIC

931 976 2030 2440 2442 3217 6557 6898 8572

## MEASUREMENT

229 240 241 474 478 1151 1159 1160 1694 1708  
2714 2724 3594 4594 5134 5135 5136 5431 5590 6026  
6030 6522 6891 6900 6901 7167 7383 7781 8563 8568  
8573 8574

## NONHOMOGENEOUS AND ANISOTROPIC MEDIA

228 465 953 964 969 972 973 1272 2105 2436  
2444 3258 3266 4160 4166 4173 4176 5124 5126 6038  
6044 6045 6880 6895 7370 7785 8183 8185 9470

## NONLINEAR

2427 2709 3575 3576 4158 4160 4180 5116 5572 6042  
8565 8838 9003

## WAVES \*CONTINUED\*

## ONE-DIMENSIONAL

175 957 962 963 969 977 1665 1696 1699 1700  
1901 2105 4160 4170 4173 4175 4176 5127 6025 6028  
6030 6036 6040 6044 6051 6887 6889 6900 7781 7794  
8566 9022 9465 9466 9473

## PLASTIC

957 967 978 1701 2434 4172 5123 5127 5136 6042  
6048 6886 6887 8573 8574 9475

## PROPAGATION VELOCITY

961 964 966 967 969 1365 1843 2432 2434 2440  
2710 3484 4158 4166 6889 7781 7784 7791 7794 7949  
8310 8569 8573 8575 8577 9473

## REFLECTION AND REFRACTION

220 221 958 963 970 971 977 1365 1709 2104  
2923 3580 4173 6030 6031 6045 6335 6337 6522 6555  
7383 7419 7423 7783 7792 8188 8243 8564 8575 8833  
8835 8852 9468

## SEISMIC

704 709 710 954 966 971 1383 1385 1386 1387  
1699 1702 2142 2432 2442 2960 2961 2962 3262 4178  
4672 5676 5679 5681 5682 5685 6556 7419 7420 7421  
7422 7423 7790 7797 8170 8233 8234 9113 9114 9121  
9122 9473 9975 9977

## SHEAR

2433 2436 4169 4172 4178 5133 6880 6885 6893 9466  
9620 9776

## SINGULAR WAVES

2431 3265 4158 4163 7172

## SPECTRA

219 237 674 3576 7422 8844

## STRUCTURE

7790 8563 8841

## SURFACE

232 233 604 964 1393 2035 2923 3263 4155 5119  
5133 5564 6043 6526 8564 8992 9464 9472 9474

## THREE-DIMENSIONAL

224 239 467 931 960 1364 1693 2434 3265 8570  
9476

## TWO-DIMENSIONAL

953 958 964 2442 5136 6040 6041 6888 8183 9470  
9472 9475 9476

## TORSIONAL

967 968 6037 8571

## VISCOELASTIC

230 968 1361 1665 3916 4038 4175 4177 5120 6043  
6338 6890 6891 6892 7426 7793 7794 7795 8577 9465  
9476 9620 9999

## VISCOPLASTIC

239 978 1681 1701 5128 5136 6040 6893

## WAVE SCATTERING

962 963 1461 5771 7789 7798 8185 8564

\*SEE ALSO\*--- GRAVITY WAVES IN LIQUIDS --  
IMPACT -- INTERFACE PHENOMENA --  
MAGNETO-FLUID-DYNAMICS, WAVES -- MARINE  
ENGINEERING, SHIP WAVES -- OSCILLATIONS IN  
FLUIDS -- PLASMA (NON-MEDICAL) -- SEISMOLOGY --  
SHOCK WAVES IN FLUIDS -- SHOCK WAVES IN SOLIDS --  
SONIC TESTING -- SOUND, WAVES -- ULTRASONICS --  
VIBRATION -- WAKES -- WATER HAMMER

## WEAR

266 729 730 731 732 733 734 736 738 996  
1030 1424 1425 1426 1427 1751 2163 2164 2165 2166  
2167 2168 2175 3866 3867 3868 3871 3872 3873 3874

## WEAR \*CONTINUED\*

3875 3876 3877 3882 4773 4776 4777 4778 4779 4780  
 4781 4782 4783 4790 4795 4796 4800 5178 5713 5717  
 5718 5719 5722 5723 5726 5727 5729 6121 6187 6577  
 6585 6967 7448 7449 7450 7451 7452 7824 8275 8278  
 8279 8280 8281 8282 8706 9144 9991 9993 9997

\*SEE ALSO--- BEARINGS -- CAVITATION -- EROSION --  
 FRETTING -- FRICTION -- LUBRICATION

## WEATHER FORECASTING

6574 8255

\*SEE ALSO--- ARTIFICIAL SATELLITES, WEATHER  
 SATELLITES -- METEOROLOGY, SYNOPTIC, ANALYSIS AND  
 FORECASTING

## WEIRS--- \*SEE\* HYDRAULIC STRUCTURES, WEIRS

## WELDED STRUCTURES--- \*SEE\* STRUCTURES, WELDED

## WELDING

2566 2567 2570 4238 4253 6206 6210 7917 7920 8672  
 9610 9613

## ARC

2857

## DEFECTS

7859 7915 9523 9611

## DIFFUSION

7919

## ELECTRON BEAM

2568 2569

## EXPLOSION

7826

## INERT GAS, SHIELDED ARC

6208 6209

## LASER

9614

## RESIDUAL STRESSES

7916 7921 9615

\*SEE ALSO--- JOINTS AND JOINING PROCESSES --  
 PLATES, WELDED

## WELLS

705 2958 3835 3845 4742 5667 6078 9112

## OIL AND GAS

254 264 265 3844 4748

\*SEE ALSO--- DRILLING

WHIRLING AND CRITICAL SPEEDS--- \*SEE\* SHAFTS,  
WHIRLING

## WHISKERS

120 5169

## WIND--- \*SEE\* METEOROLOGY, WIND PRESSURE

## WIND TUNNEL

514 515 1146 2634 5609

## BALANCE SYSTEM

3802

## CORRECTIONS

1180 2741 5424

## HYPERSONIC

1177 3621 3687 8810

## MEASUREMENTS

1138 1139 1142 1143 1144 1885 1887 1889 1891 2068

## WIND TUNNEL \*CONTINUED\*

## MEASUREMENTS \*CONTINUED\*

2689 2694 2695 2699 2701 2702 2706 2707 2741 2742  
 2745 2884 3561 3565 3568 3572 3620 3802 4273 4453  
 4471 5408 5409 5413 5610 6316 6320 6321 6324 6325  
 6369 6483 7160 7161 7164 7166 7191 7199 7200 7342  
 7343 8018 8019 8173 8819 8820 8825 8826 8827 8828  
 8830 9027 9028 9749 9754 975\*

## MODELS

3403 3411 7201

## PLASMA

3787 4455 5592

## SUPERSONIC

4470 8810 8884

## TRANSONIC

1884 8882

\*SEE ALSO--- SHOCK TUBES

WING BODY COMBINATION--- \*SEE\* AERODYNAMIC  
INTERFERENCE

## WINGS

192 3566 5412 6836 7100 7336 7910 8013 8700 9745  
 9754 9758

## DELTA

1137 1138 1140 1881 2066 2692 3563 3568 5322 5408  
 5410 5411 5415 6313 7160 8015 8820 9027 9748 9749  
 9753 9755

## HEAT TRANSFER

7158

## HYPERSONIC

1883 8817 8825 9746

## INCOMPRESSIBLE FLOW

1135 1879 2707 6311 7154

## JET FLAP

2689 8016

## OGEE

5409

## PRESSURE DISTRIBUTION

1136 2691 3564 7157 9028 9897

## SLENDER

5283 8818 9750

## SUBSONIC

4617 8014 8819 8824 9751 9752

## SUPERSONIC

1142 1878 1883 1890 2693 3565 4617 6269 6482 6483

## SWEPT

1047 1142 1880 2621 3561 7343

## TRANSONIC

1319 1884 2694 2695 5421 7155 7158 8822

## UPWASH AND DOWNWASH

1180 3507 8014

\*SEE ALSO--- AERODYNAMIC INTERFERENCE -- AIRFOIL  
 THEORY -- FLUTTER -- OSCILLATIONS IN FLUIDS

WIRE DRAWING--- \*SEE\* DRAWING

WIRES, EXPLODING

657 2905 5624 5625 5626

WOOD STRUCTURES

1754

WOOD, TIMBER AND PLYWOOD

1747 5211 6154 6158 7622 7822 8222 8664

X

X-RAY TECHNIQUES

300 301 1023 1746 2496 2497 2513 4055 4729 5194  
5212 6094 6114 6117 6953 6954 6955 6955 8660

Z

ZERO G PHENOMENA

1088 6340

Review Numbers:	1-764	765-1450	1451-2178	2179-2991	2992-3900	3901-4817	4818-5750	5751-6601	6602-7476	7477-8309	8310-9172	9173-10008
Issue:	January	February	March	April	May	June	July	August	September	October	November	December

# Author Index to Applied Mechanics Reviews

Volume 22, January-December 1969

## FEATURE ARTICLES

	Issue	Pages		Issue	Pages
<b>Whitman, Robert V.</b> The Current Status of Soil Dynamics	Jan.	1-8	<b>Gebhart, B.</b> External Natural Convection Flows	July	691-701
<b>Abramson, H. Norman</b> Hydroelasticity: A Review of Hydrofoil Flutter	Feb.	115-121	<b>Lin, Y. K.</b> Random Processes	Aug.	825-831
<b>Evan-Iwanowski, Ross M.</b> Nonstationary Vibrations of Mechanical Systems	Mar.	213-219	<b>Muller, P. M., and Sjogren, W. L.</b> Lunar Gravimetry and Mascons	Sept.	955-959
<b>A Report</b> Electronic Data Processing: A Forecast for 1968-2000	May	429-431	<b>Oldenburger, Rufus</b> Methods of Solution of Algebraic Equations	Oct.	1091-1094
<b>Yen, S. M.</b> Numerical Methods for Solving Rarefied Gas Flow Problems	June	557-564	<b>Strughold, Hubertus</b> Basic Biomedical Concepts in the Jet and Space Age	Dec.	1339-1342

## A

- |  |  |  |
|--|--|--|
| <b>Abas, S.</b><br>Stability of a Hartmann boundary layer under the influence of a parallel magnetic field 2870  | <b>Abdalla, K. L.</b><br>Vapor ingestion phenomenon in weightlessness 6339<br><i>See also Symons, E. P.</i> 7359                                     | <b>Abele, M.</b><br>Microwave electron density probe 2062  |
| <b>Abbas, M.</b><br>Propagation of hydromagnetic waves normal to the magnetic field in the presence of currents 8993   | <b>Abdel Karim, A. I.</b><br>Criterion for the stability of numerical integration methods for the solution of systems of differential equations 3913 | <b>Aben, H.</b><br>Optical theory of the multilayer-reflection technique for three-dimensional photoelastic studies 7842                   |
| <b>Abbott, B. W.</b><br>Dynamic flexure experiments with brittle beams 6896  | <b>Abdel-Samad, S. R.</b><br><i>See Wright, R. N.</i> 4989   | <b>Abgaryan, K. A.</b><br>The asymptotic solution of equations for a controllable process 2248   |
| <b>Abbott, D. E.</b><br>Application of the Galerkin-Kantorovich-Dorodnitsyn method of integral relations to the solution of steady laminar boundary layers 5377  | <b>Abdrakhmanov, S. A.</b><br><i>See Leonov, M. Ya.</i> 9331   | <b>Abolitz, A. L.</b><br>Short and long columns under uniaxial and biaxial flexure 917   |
| <b>Abbott, F. T., Jr.</b><br>Some current techniques in experimental aerelasticity 3802  | <b>Abdulhadi, F.</b><br><i>See Stickney, G. H.</i> 2367  | <b>Abonyi, I.</b><br>On the solution of the relativistic Boltzmann equation without collisions in presence of certain external fields 8790 |
| <b>Abbott, M. B.</b><br>A note on one-dimensional consolidation of a clay layer that increases in thickness with time 981<br>A numerical realization of the Taylor-Merchant theory of consolidation 2446 | <b>Abe, H.</b><br>A linear theory for thick shells 5033  | <b>Aboudi, J.</b><br><i>See Alterman, Z. S.</i> 7422<br><i>Alterman, Z. S.</i> 9975  |
|  | <b>Abe, T.</b><br><i>See Taira, S.</i> 1023<br><i>Taira, S.</i> 5194<br><i>Taira, S.</i> 5904  | <b>Abraham, F. F.</b><br>Predicting the critical supersaturation for homogeneous nucleation of vapor condensation 5468                     |
|  | <b>Abe, Y.</b><br>Ultrasonic amplification in a transverse magnetic field 7381<br><i>See also Sakurai, S.</i> 5165                                   | <b>A physical interpretation of the structure of the ventilation coefficients for freely falling water-drops 6571</b>                      |
|  | <b>Abel, F. L.</b><br>Effects of anesthesia and artificial ventilation on caval flow and cardiac output 10002  | <b>Abraham-Shrauner, B.</b><br>Propagation of hydromagnetic waves through an anisotropic plasma 3762                                       |

Review Numbers: 1-764 765-1450 1451-2178 2179-2991 2992-3900 3901-4817 4818-5750 5751-6601 6602-7476 7477-8309 8310-9172 9173-10008  
Issue: January February March April May June July August September October November December

- Abramov, A. Kh.  
Optimum setting of servicing rate 3995
- Abramov, V. M.  
See Yanchenko, V. F. 9690
- Abramova, K. B.  
Magnetic confinement systems with minimum-B toroidal fields ("Tornado") 3779
- Abramovich, G. N.  
Turbulent jets of air, plasma, and real gas 9682  
An investigation of the turbulent jets of different gases in a general stream 9684
- Abramovich, M. D.  
Estimating the tendency of thin sheets to brittle fracture 3334
- Abramovici, F.  
Diagnostic diagrams and transfer functions for oceanic wave-guides 706
- Abramowicz, M.  
Influence of base length of extensometers on the accuracy of measurements of unit deformations in concrete 1022
- Abramowitz, S.  
See Cassidy, E. C. 5624
- Abramson, H. N.  
Hydroelasticity: Some problems and some solutions 8269
- Abrashina, N. N.  
Long waves generated by periodic pressures in an inhomogeneous fluid of variable depth 9771
- Abuku, S.  
See Iwayanagi, J. 7849
- Achenbach, J. D.  
Tensile failure of interface bonds in a composite body subjected to compressive loads 3333  
Dispersion of free harmonic waves in fiber-reinforced composites 4176  
Wedge-like waves in a composite medium 4177  
The influence of heat conduction on propagating stress jumps 4710  
Free waves in a plate supported by a semi-infinite continuum 6035  
Longitudinal force on an embedded filament 7621  
See also Sun, C.-T. 236  
Freund, L. B. 5119  
Herrmann, G. 6044  
Sun, C.-T. 6894  
Freund, L. B. 7787  
Freund, L. B. 7792
- Achieser, N. I.  
Lectures on approximation theory 4848
- Achyuta Rao Bapat, V.  
An equivalent linearization for the solution of certain class of non-linear vibration problems 3220  
Superposition of frequencies in non-linear spring mass systems 3227  
Response spectrum of nonlinear spring mass system subjected to transient disturbances 9405
- Ackerberg, R. C.  
On the interaction of a two-dimensional jet with a parallel flow: Part 1, Formulation of a boundary value problem and asymptotic solutions 3489  
On a nonlinear theory of thin jets: Part 2, A linear theory for small injection angles 4362  
Boundary-layer flow on a vertical plate 7070
- Ackermann, G.  
On the solution of partial differential equations for flat plates by the finite difference method 5924
- Ackermann, J.  
Describing functions for the analyses and synthesis of nonlinear sampling control loops 6668
- Ackroyd, J. A. D.  
Wall shear stress and heat transfer for shock-induced laminar boundary layers 5383
- Acosta, A. J.  
See Mani, R. 1914  
Klose, G. J. 5710
- Acquaviva, S. J.  
Structural ceramics and testing of brittle materials 9549
- Acrivos, A.  
Further experiments on steady separated flows past bluff objects 5316  
See also Pan, Y.-F. 390  
Pan, Y.-F. 1211  
Vidal, A. 1973  
Goddard, J. D. 2808  
Frankel, N. A. 8066
- Acum, W. E. A.  
Theory of lifting surfaces oscillating at general frequencies in a subsonic stream 9752
- Aczel, O.  
See Salceanu, C. 6920
- Adamenko, I. N.  
Heat exchange between a solid body and helium filling a narrow gap 1198
- Adams, C. J.  
See Hagemeyer, D. 8672
- Adams, D. W.  
See Weiland, W. F., Jr. 9837
- Adams, E.  
Rigid bounds of exact solutions of Prandtl boundary layer problems 1123
- Adams, G. K.  
The chemistry of solid propellant combustion: Nitrate ester or double base systems 9846
- Adams, J.  
Dynamic checkout, pre-tuning and testing of power plant control systems 824
- Adams, J. A.  
Partial pressure measurements on a subliming organic surface 8082
- Adams, J. Q.  
Effusion: Part 3, Angular number distributions of gaseous CsCl from right-circular cylindrical orifices into vacuum 7125
- Adams, S. F.  
See Chinn, J. 9587
- Adamski, R.  
Some approximate computation method of multistory frame structures 9578
- Adamson, T. C., Jr.  
Performance analysis of a rotating detonation wave rocket engine 8110
- Addicott, J. L.  
Spark knock: Part 1. Some considerations on detecting and preventing spark knock in the car engine 5542
- Adekola, A. O.  
Effective widths of composite beams of steel and concrete 5911
- Adelberg, M.  
Mean drop size resulting from the injection of a liquid jet into a high-speed gas stream 7410
- Adelman, H. M.  
Vibration analysis of a 1/40-scale dynamic model of Saturn V-launch platform-umbilical-tower configuration 1341  
A method for computation of vibration modes and frequencies of orthotropic thin shells of revolution having general meridional curvature 2410
- Adenpegba, D.  
See Swamy, N. 4264
- Adiri, I.  
A time-sharing queue with preemptive-resume priority discipline 9203
- Adler, E. L.  
Electromechanical conversion efficiency of biased semiconductor transducers 6049
- Adolph, U.  
Calculation methods for selecting the most suitable working valves for reciprocating compressors 1165  
Determination of the maximum performance coefficient of an automatic valve in a plunger pump 2595
- Adomeit, G.  
Determination of elastic constants of a structured material 4949
- Advani, S.  
Large amplitude axisymmetric transverse vibrations of spinning membrane disks 7763
- Aeberli, A. E.  
Governing of water turbines 1506
- Afanasev, E. F.  
A problem in shock wave diffraction 4376  
Some heat equation problems with mixed boundary conditions 6384
- Afanasev, M. M.  
See Kesselman, P. M. 4489
- Affinogenov, V. D.  
The stresses in a spherical shell under axisymmetric heating 4079  
Thermal stresses in a shallow spherical shell under axisymmetric heating 6536
- Africano, R. C.  
See Logsdon, T. S. 3010



- Agavea, S. E.  
Nonstationary rectilinear motion of a thixotropic viscoplastic fluid between two parallel infinite plates 6214
- Agamirzyan, L. S.  
Drawing a plastic strip through a die 6088
- Agar, W. O.  
An optical method of measuring transverse surface velocity 6138
- Agarwal, J. P.  
Magnetohydrodynamic effect in lubrication: Part 2. Full journal bearing with inertia effects 2170
- Agarwal, K. N.  
A thermal probe for measurement of thermal conductivity of insulating materials at low temperatures 1952
- Agbasiere, J. A.  
Flexural vibration of symmetrical multilayer beams with viscoelastic damping 5993
- Ageeb, N. V.  
On the mechanism of plastic deformation for the extension of single crystal molybdenum of various orientations 4981
- Aggarwal, J. K.  
See McClamroch, N. H. 2225
- Aggarwala, B. D.  
See Iqbal, M. 9908
- Agmon, S.  
Asymptotic formulas with remainder estimates for eigenvalues of elliptic operators 775
- Agostinelli, C.  
Green's integral formulas in magnetohydrodynamics 4586
- Agranat, B. A.  
Determination of the maximum radius of a cavitation void in a sound field 4692
- Agrawal, D. D.  
See Gupta, C. P. 3663
- Agrawal, J. C.  
See Ray, M. 2576
- Ahmad, D.  
See Koloseus, H. J. 6229
- Ahmed, R.  
See Gangoli, S. G. 7384
- Ahrens, D.  
Investigation of a control system with bounded restoring force 1481
- Ahrens, H.  
See Dubbeck, H. 4017
- Ahuja, J. S.  
See Kumar, R. 6827
- Ahuka, K. L.  
Application of Biot's variational principle to some nonlinear problems in heat transfer 6390
- Ai, D. K. Y.  
See Solomon, L. P. 9926
- Aida, T.  
Bending fatigue strength of case-hardened gears 3419
- Ainbinder, S. B.  
Cohesion of metals liable to brittle failure in joint plastic deformation without heating 4223
- Ainola, L. Ia.  
A reciprocal theorem for dynamic problems of the theory of elasticity 3264
- Airapetov, E. L.  
Contact deformation of spur gear teeth 2552
- Aisenberg, S.  
See Rohatgi, V. K. 9015
- Aizengendler, P. G.  
Application of Newton's diagram to the problem of stability of periodic solutions 9178
- Aizerman, M. A.  
Pneumatic and hydraulic control systems: Vol. 2 9249
- Ajmani, J. L.  
See Horne, M. R. 8500
- Akatnov, N. I.  
Laminar and turbulent jets 1821
- Akatsuka, Y.  
Pressure on forms of prepacked concrete 5250
- Akerboom, F.  
An improved form of mercury manometer 3611
- Akers, A.  
Pressure due to inertia in a journal bearing 8294
- Akesson, B. A.  
Thermally loaded elastic beams and plates: Analyzed by displacement method in differential form 5633
- Aketa, Y.  
A theory of compacting metal powder 9318
- Akhmedov, R. B.  
Calculation of a laminar twisted jet of compressible fluid 4382
- Akhundov, E. B.  
Errors in measurement of a relative increment in heat rate of a boiler-turbogenerator unit, by the direct balance method 4485
- Akilov, G. P.  
Extremal states and extremal controls 1511
- Akimov, I. S.  
Calculation of the temperature distribution in an eccentric annular layer with heat release 5489
- Akinsete, V. A.  
Nonsimilar effects in the collapsing of an empty spherical cavity in water 9680
- Aklonis, J. J.  
See Tobolsky, A. V. 4046
- Akselrad, E. L.  
Constrained torsion of thin-walled rods 4985
- Aksenov, E. P.  
Secular perturbances of distant artificial Earth satellites 2083  
Secular and long-term perturbances of a satellite by an axisymmetric planet 4636
- Aksentian, O. K.  
Singularities of the stress-strain state of a plate in the neighborhood of an edge 4070
- Aksyantsev, A. M.  
Asymptotic stability of angular motion of spacecraft 9038
- Akulenko, L. L.  
Steady-state periodic and rotational motions in perturbed, significantly nonlinear and almost conservative systems with one degree of freedom, in the case of an arbitrary constant deviation of the argument 3221
- Akulichev, V. A.  
Relationship between the statistical characteristics of acoustic and cavitation noise 4666
- Akulshina, T. S.  
See Korbut, B. A. 9398
- Akyuz, F. A.  
Solution of nonlinear problems of elastoplasticity by finite element method 7508
- Aladev, I. T.  
See Ulyanov, A. F. 8916  
Ulyanov, A. F. 8933
- Alais, M.  
Refrigeration by the thermo-electric process 6375
- Albano, E.  
A doublet-lattice method for calculating lift distributions on oscillating surfaces in subsonic flows 8821
- Albany, H. J.  
Thermo-electric generators with radioactive isotopes 3632
- Alber, I. E.  
Integral theory for supersonic turbulent base flows 1829
- Albers, H.  
See Doron, Z. J. 8981
- Albers, J. A.  
Design-point performance of a double-containment tantalum-and-stainless-steel mercury boiler for Snap-8 5615
- Albrecht, D.  
Form stability of some blade root connections in turbo engines 4028
- Albrecht, P.  
Treatment of parameter dependent problems on a hybrid analog computer 3026
- Albrekht, E. G.  
The existence of an optimal Lyapunov function and of a continuous optimal control for one problem on the analytical design of controllers 3980
- Alderson, M. A. H. G.  
See Linning, D. L. 570
- Alderson, S. W.  
The development of anthropomorphic test dummies to match specific human responses to accelerations and impacts 5739
- Al-Dhahir, Z. A.  
A note on one-dimensional constant-head permeability tests 8232

- Aleksandrov, A. A.**  
A system of equations for steam, intended for engineering calculations 2755  
*See also* Vukalovich, M. P. 4494
- Aleksandrov, A. G.**  
The inverse problem of synthesis of optimal control 1515  
The analytic design of optimal control for gyro stabilizers 7563
- Aleksandrov, A. Ya.**  
Solution of three-dimensional problems in the theory of elasticity for a transversely isotropic body of revolution with the aid of analytic functions 5858
- Aleksandrov, I. A.**  
Waves with complex propagation constants in an iris-loaded waveguide: Part 1 2710  
Iris-loaded waveguide as a deflecting system for a microwave separator: Part 2 5598
- Aleksandrov, V. M.**  
Asymptotic solution of a class of integral equations and its application to contact problems for cylindrical elastic bodies 5765  
Contact problems of an elastic wedge 5872  
Asymptotic methods and contact problems of the theory of elasticity 8414
- Aleksandrov, V. S.**  
Atmospheric turbulence in and with cumulo-nimbus clouds 9126
- Aleksandrovskii, N. M.**  
Determination of dynamic characteristics of nonlinear objects (review) 8344
- Aleksandryan, M. A.**  
Paired integral equations according to Legendre functions 8323
- Alekseev, B. V.**  
Boundary layer with chemical reactions 443
- Alekseev, O. G.**  
Optimization of complex system reliability with several constraints 6682
- Alekseev, O. N.**  
Effect of the Mach number and angle of attack on the characteristics of a turbine stage and the cascade of profiles 8865
- Alekseev, S. A.**  
Theory of fatigue damage 8639
- Aleshin, A. I.**  
*See* Lyakhovskii, I. D. 6349
- Alessandrini, G.**  
Microscopic observations of wear debris: A contribution to the study of wear mechanism 4781
- Alessi, R.**  
Flat-beam linked to one or more horizontal plates 893
- Alexander, A. J.**  
Forward speed effects on annular jet cushions 6481
- Alexander, E. L.**  
Mechanics of reinforced solid propellants 3749
- Alexander, H.**  
A constitutive relation for rubber-like materials 6700
- Alexander, J. M.**  
*See* Chakrabarty, J. 7651
- Alexander, S. M.**  
*See* Schoffen, H. M. 825
- Alexandrov, A. Y.**  
Solution of three-dimensional problems of the theory of elasticity for solids of revolution by means of analytical functions 2297
- Alexandrovitz, A.**  
Dithering as a factor in hysteresis elimination in rotating amplifiers 7550
- Alexeff, I.**  
*See* Doucet, H. 4594
- Alfonso-Faus, A.**  
Rotation of the solar wind plasma 3781
- Alfutov, N. A.**  
On the possibility of solving plate stability problems without a preliminary determination of the initial state of stress 2390  
Stability of a cylindrical shell loaded by a pressure that varies along the length 5056  
*See also* Balabukh, L. I. 5051
- Alger, G. R.**  
Fall velocity of irregular shaped particles 1085
- Al-Hassani, S. T. S.**  
A note on the fragmentation of tubular bombs 9477
- Ali, H. B.**  
Simplified method of calculating natural frequencies and normal modes of vibration for ships 6853
- Ali, I.**  
*See* Fox, J. A. 5667
- Aliev, O. A.**  
On the solution of nonlinear differential equations of equilibrium of shallow cylindrical shells 8486
- Alikhanov, S. G.**  
Radiation instability of a bounded plasma 4600
- Alikhodzhaeva, M. A.**  
Selective coatings for solar energy receivers 1985
- Alippi, A.**  
New holographic method for the investigation of light diffraction by ultrasonic standing waves 4699
- Alksne, A. Y.**  
*See* Spreiter, J. R. 8136
- Allan, R. N.**  
Bolted joints with oversize or slotted holes 2571
- Allegre, J.**  
Study of the flow around a flat oblique plate at high Mach numbers 7099
- Allen, G.**  
An efficient method for computation of character tables of finite groups 22
- Allen, J.**  
The hydraulic jump and other phenomena associated with flow under rectangular sluice-gates 7051
- Allen, J. M.**  
Use of Baronti-Libby transformation and Preston tube calibrations to determine skin friction from turbulent velocity profiles 1886
- Allen, J. P. C.**  
*See* Horn, P. J. 7920
- Allen, R. F.**  
The effects of interference and viscosity in the Kelvin ship-wave problem 7169
- Allen, S. J.**  
Rectilinear shear flow of fluid with interacting deformable substructure 9164  
*See also* Kline, K. A. 7929
- Allman, D. J.**  
A systematic relaxation method for the determination of the normal modes and the natural frequencies of vibrating systems 926  
The effect of change of geometry of the limit pressure of a flush nozzle in a spherical pressure vessel 7001
- Alma, H. F.**  
*See* Ali, H. B. 6853
- Almroth, B. O.**  
Computer analysis of various shells of revolution 5052
- Al-Naimi, T. T.**  
*See* Paul, R. J. A. 689
- Alper, P.**  
An application of control theory to a problem in educational planning 2275
- AlSaji, S. J.**  
*See* Isaacson, L. K. 7289
- Al-Shahristani, H.**  
Heat transfer from teflon-treated surfaces under flow conditions 8085  
*See also* Andrews, D. G. 559
- Altan, T.**  
A numerical method for estimating the temperature distributions in extrusion through conical dies 259  
Plastic deformation of copper and steel in hot extrusion through conical dies 3305
- Al-Temimi, C. A.**  
Interaction between two sound fields propagating in different directions 6517
- Alterman, Z.**  
Normal modes and rays in the propagation of a seismic pulse from a point-source in a layered sphere 971  
The common spectrum of computed seismograms 7422  
Seismic pulse in a layered sphere: Normal modes and surface waves 9975
- Althaus, D.**  
A method for the determination of the location of the boundary layer transition 453

- Althoff, W.**  
Creep rupture strengths and creep deflection of overlapping metal-bonded joints in the temperature range from +20°C to +175°C 1055
- Aitieri, P.**  
On the transient condition of asymmetrical thermal schemes 1958  
On transient temperature distribution in plane fuel elements 2771
- Alvermann, W.**  
Flow investigations in combustors with aerodynamic flame stabilization: Part 2, Preheated flow 5530
- Alzheimer, W. E.**  
Transient response of cylindrical, shell-core systems 6032  
Unsymmetric bending of prestressed annular plates 7676
- Alzner, E.**  
*See* Zakkay, V. 4408
- Amann, H.**  
Monte Carlo method and linear boundary value problems 26  
Optimal initial distribution of the Monte Carlo method with information storage 7505
- Amashukeli, T. M.**  
Generalized three-dimensional mixed problems of the theory of elasticity 8404
- Amazigo, J. C.**  
Buckling under axial compression of long cylindrical shells with random axisymmetric imperfections 6785  
*See also* Budiansky, B. 9399
- Ambartsumian, S. A.**  
Stability of rods made from a material with heterogeneous moduli 4110  
Theory of anisotropic plates: Strength, stability and oscillations 9369
- Ambartsumyan, Ye. N.**  
Investigation of the spectral characteristics of gases heated by shock waves 622
- Ambartsyryan, S. A.**  
Stability of rods made from a material with heterogeneous moduli 4110
- Ambraseys, N.**  
Liquefaction of soils induced by earthquakes 9976
- Ambrosiani, J. P.**  
*See* Ness, N. 7297
- Ames, W. F.**  
Integrated Lagrange expansions for a Monge-Ampere equation 13  
Nonlinear vibration of a traveling threadline 7751
- Amme, R. C.**  
Ultrasonic velocity dispersion in ethan-argon mixtures 2921
- Ammon, W.**  
The effect of unavoidable errors on the calculation of the frequency response from the step function response 3051
- Amon, R.**  
Clamped annular plate under a concentrated force 6762  
Circular plate with supported edge-beam 8464
- Amy, J.**  
Study and experimental set-up for measuring local velocities in magnetohydrodynamic flow 8158  
Experimental study of the characteristics of a hydraulic circuit for the ultimate adjustment of an apparatus for measuring local velocities in magnetohydrodynamic flow 8159
- Anastasescu, D.**  
The effect of prestressing in the calculation of space frames 5231  
On the analysis of orthogonal space frames 7889
- Anbumani, K.**  
*See* Kulkarni, P. T. 2259
- Anchev, A.**  
Permanent rotations of a heavy gyrostat having a stationary point 7582
- Andel, J.**  
Iterative solution of the best linear extrapolation problem in multi-dimensional stationary random sequences 6625
- Ander, P.**  
*See* Sloniewsky, A. R. 1176
- Anders, J. B.**  
*See* Edwards, C. L. W. 1867
- Andersland, O. B.**  
*See* Goughnour, R. R. 6902
- Anderson, B. D. O.**  
Application of the second method of Lyapunov to the proof of the Markov stability criterion 40  
A simplified viewpoint of hyperstability 808  
An algebraic solution to the spectral factorization problem 1482  
Extensions of quadratic minimization theory: Part 2, Infinite time results 3076  
*See also* Moore, J. B. 1493  
Moore, J. B. 3075  
Newcomb, R. W. 5816  
Moore, J. B. 7543
- Anderson, B. H.**  
Design of supersonic inlets by a computer program incorporating the method of characteristics 5323
- Anderson, D.**  
*See* Majid, K. I. 6180
- Anderson, D. G. M.**  
On the steady Krook kinetic equation: Part 2 1984
- Anderson, D. L.**  
Dynamic pulse buckling of cylindrical shells under transient lateral pressures 1658  
Shock-wave equations of state for rocks and minerals 5163
- Anderson, E.**  
Yielding, twinning, and fracture of Armco iron and alloys of iron with silicon, chromium, and manganese 6926
- Anderson, G. L.**  
*See* Mowbray, D. F. 7762
- Anderson, G. M.**  
One-dimensional minimum-time rendezvous for a thrust-limited rocket 2894
- Anderson, G. P.**  
High sensitivity logarithmic recorder of ultrasonic attenuation 9931
- Anderson, J. D., Jr.**  
Heat transfer from a viscous non-gray radiating shock layer 3698
- Anderson, J. S.**  
Base pressure and noise produced by the abrupt expansion of air in a cylindrical duct 1845
- Anderson, M. S.**  
*See* Dixon, S. C. 3213
- Anderson, R. G.**  
Vibration and stability of plates using finite elements 6815
- Anderson, R. S.**  
*See* Latham, G. V. 9123
- Anderson, T. B.**  
Fluid mechanical description of fluidized beds: Stability of the state of uniform fluidization 5658
- Anderson, V. C.**  
Spatial and spectral dependence of acoustic reverberation 711  
DICANNE, a realizable adaptive process 8186  
Rejection of a coherent arrival at an array 8189
- Anderson, W. H.**  
*See* Palm, J. W. 4461
- Anderson, W. J.**  
*See* Schuller, F. T. 2171  
Bamberger, E. N. 2172  
Hamrock, B. J. 2173  
Hamrock, B. J. 2174  
Zaretsky, E. V. 3879  
Fleming, D. P. 3881  
Zaretsky, E. V. 4794  
Cunningham, R. E. 7457  
Cunningham, R. E. 7458  
Schuller, F. T. 8293  
Cunningham, R. E. 9152
- Anderson, W. M.**  
Diffraction of an incomplete expansion wave by a corner 416
- Andoh, S.**  
*See* Ohuchida, H. 6111
- Andrade, E. N. da C.**  
The flow of polycrystalline lead under simple shear at higher temperatures 3132
- Andreatch, P., Jr.**  
*See* McSkimin, H. J. 359
- Andreev, A.**  
*See* Yudaev, B. N. 8946
- Andreev, G. Ya.**  
Distribution of the contact pressure in interference fits 2547
- Andreev, L. V.**  
Stability of cylindrical shells under the combined action of bending moment and external pressure 4103
- Andreev, V. G.**  
Photoelastic transducer with multiplication of the path difference: Exchange of experience 2507
- Andreev, Yu. N.**  
Optimum control of the heating of massive bodies 3997

- Andre-Talamon, T.  
Nonlinear heat conduction 6379
- Andrew, A. L.  
A note on the Ritz method with an application to overtone stellar pulsation theory 4818
- Andrews, A.  
A square root formulation of the Kalman covariance equations 4843
- Andrews, D. G.  
The variation of nucleate boiling of toluene with liquid velocity and subcooling 559  
Velocity, subcooling and surface effects in the departure from nucleate boiling of organic binaries 4536  
Problems in the correlation of pool burnout results 8932  
Calculation of temperature distributions in fuel rods with varying conductivity and asymmetric flux distribution 9807  
*See also* Al-Shahristani, H. 8085
- Andrews, F. A.  
*See* Deferrari, H. A. 1691
- Andrews, K. W.  
*See* Brooksbank, D. 6094
- Andrews, R. D.  
Unsteady heat transfer from a rotating disk 8056
- Andrews, W. R.  
*See* Mowbray, D. F. 6110
- Andriankin, E. I.  
Penetration depth due to impact of meteor particles having sub-threshold velocities 9479
- Ang, A. H.-S.  
Discrete model analysis of elastic-plastic plates 149
- Angelino, G.  
Carbon dioxide condensation cycles for power production 5452
- Angstrom, A. K.  
*See* Drummond, A. J. 1405
- Annand, W. J. D.  
Choice of a computing procedure for digital computer synthesis of reciprocating engine cycles 1263
- Annikov, V. E.  
The influence of pressure on the burning capacity of secondary explosives 7361
- Anno, J. N.  
*See* Pattee, H. E. 6207
- Anokhin, A. M.  
Investigation of the connection between the acoustic radiation of jet flaps and their working parameters 2253
- Ansley, R. W.  
Motion of spherical particles in a Bingham plastic 383
- Antifeev, V. A.  
*See* Baskakev, A. P. 2786
- Antman, S.  
A note on a paper of Tadjbakhsh and Odeh 910  
General solutions for plane extensible elasticae having nonlinear stress-strain laws 5910
- Anton, I.  
Determination of the sensitivity to cavitation of a cascade of hydrofoils of arbitrary shape 498
- Antonenko, T. I.  
Calculation of the velocity of sound for normal liquids 4689
- Antonescu, N.  
On the stability processes of flames for the combustion of gaseous fuels 1255
- Antonescu, P.  
Contribution to the graphical synthesis of a spatial slider-crank mechanism 6198
- Antonyuk, V. E.  
*See* Basheev, S. M. 4302
- Anwar, H. O.  
Prevention of vortices at intakes 4333
- Aoki, I.  
*See* Yanagimoto, S. 9507
- Aoki, M.  
Note on aggregation and bounds for the solution of the matrix Riccati equations 5  
Estimation of the state vector of a linear stochastic system with a constrained estimator 8357
- Aoki, S.  
Fretting of bearing steel by rolling contact 5729
- Aoshima, N.  
The measurement of the flexural wave propagation velocity by correlation techniques 6901
- Aparisi, R. R.  
Calorimetric investigation of high-temperature solar devices 9131
- Apatovskii, L. E.  
Raising the efficiency of regenerative air preheating by steam from turbine bleeds 5456
- Apelblat, A.  
Application of the Laplace transform to the solution of the boundary layer equations: Part 2, Magneto-hydrodynamic Blasius problem 6469
- Apostolatos, N.  
Principles of an interval calculus for matrices and some applications 3930
- Appel, H.  
Axisymmetric deformations of eccentrically stiffened and orthotropic circular cylinder shells 4089  
Note on the post-buckling of thin-walled longitudinally compressed circular cylindrical shells of finite length 5971
- Appl, F. J.  
Buckling of inelastic, tapered, pinned columns 2382  
Numerical analysis of plane elasticity problems 5853  
*See also* James, T. K. 2482
- Applewhite, B. A.  
*See* Wilkov, M. A. 1015
- Appoldt, F. A.  
A preliminary report on dynamic socket pressures 2988
- April, G. C.  
Calculation of temperature profile in ablator char using MIMIC 30
- Arabadzhi, V. I.  
On the noise of waterfalls 665
- Arakawa, M.  
Experimental study on the motion of a deformed drop in a circular tube at low Reynolds numbers 5300
- Arakelian, T. T.  
Bending of fiber 3157
- Arase, E. M.  
Ambient sea noise in the deep and shallow ocean 4669
- Arase, T.  
*See* Arase, E. M. 4669
- Aratani, T.  
Numerical solution for two-dimensional unsteady state heat conduction problems 8051
- Arav, F.  
Application of photoelasticity to three-dimensional stress problems 3359
- Arcisz, M.  
On the Hencky-Prandtl nets based on two orthogonal circles 1605  
On discontinuity lines for simple plastic stress states in plane strain 3140
- Argon, A. S.  
Dislocation dynamics 8445
- Argyris, J. H.  
The TET 20 and TEA 8 elements for the matrix displacement method 4256  
The lumina element for the matrix displacement method 4930  
Matrix analysis of shells: Small and large displacements 5017  
The elasto-plastic calculation of general structures and continua A sequel to technical note 13: The curved tetrahedral and triangular elements TEC and TRIC for the matrix displacement method 5918  
A sequel to technical note 14 on the TUBA family of plate elements 5919  
The TUBA family of plate elements for the matrix displacement method 5921  
The SHEBA family of shell elements for the matrix displacement method 5935  
The Hermes 8 element for the matrix displacement method 7600  
Triangular elements with linearly varying strain for the matrix displacement method 7669  
Analysis of spatial stress distributions in arch dams by the finite element procedure 7872
- Ariaratnam, S. T.  
Dynamic stability under random excitation 9455
- Aribert, J.-M.  
Theoretical study of the influence of the difference in viscosities on the displacement of a meniscus 8851
- Arifov, U. A.  
The thermionic method of converting solar energy to electricity: Review 3635



- Ariman, T.  
Couple stresses in fluids 376  
On the stresses around a circular hole in micropolar elasticity 1577  
Couple stresses in fluids 3443  
Micropolar and dipolar fluids 5272  
Flow of micropolar fluids between two concentric cylinders 5297  
On orthotropic thick elastic plates on an elastic foundation 5953  
Some problems in bending of micropolar plates: Parts 1 and 2 9347  
See also Tauchert, T. R. 2930  
Askar, A. 7638
- Arkadev, B. A.  
A note on free convection in turbine cavities 4526
- Arkhipov, V. N.  
Modeling of the deformed state of bent laminated plates 8646  
Analytical conditions of the existence of a crank in a spatial mechanism with two turning and two spherical pairs 8711  
Analytical conditions of existence of a crankshaft in a three-dimensional lever four-bar mechanism 9602
- Armer, G. S. T.  
Ultimate load tests of slabs designed by the strip method 6160  
The strip method: A new approach to the design of slabs 7875  
See also Wood, R. H. 7883
- Armistead, R. A., Jr.  
A study of wall-turbulence phenomena using hot-film sensors 2655
- Armour, J. C.  
Fluid flow through woven screens 1080
- Armstrong, A. E.  
Lunar day test of an Apollo mission television camera 651
- Armstrong, E. S.  
A computational method for time-optimal space rendezvous 2899
- Armstrong, I. D.  
The natural frequencies of grillages 2414
- Armstrong, R. L.  
Torsion of thick walled rectangular bars 7615
- Armstrong, T.  
Asymptotic state of the two-stream instability 2043
- Arnason, G.  
A numerical experiment in dry and moist convection including the rain stage 3852  
A case study of the validity of finite difference approximations in solving dynamic stability problems 5393
- Arnaudon, J.-F.  
See Tsen, L. F. 7095  
Tsen, L. F. 7098
- Arndt, R. E. A.  
Rough surface effects on cavitation inception 6236
- Arnell, R. D.  
The development of surface orientations on rubbed pyrolytic carbon and their relation to the friction 3872
- Arnold, V. I.  
Ergodic problems of classic mechanics 857
- Aro, T. O.  
Measurement of plasma temperature using a wave guide probe 1312  
Skin-depth effect of a cylindrical shock-produced plasma 2034
- Aroesty, J.  
See Cole, J. D. 3546
- Arone, R. G.  
Determination of the susceptibility of a steel to cold brittleness from the appearance of the fracture 1006
- Aronova, N. R.  
Electromagnetic mixing of liquid metal using a pulsating field 2875
- Aronovich, G. V.  
On the theory of the Cherepnov water lifter 2735
- Arora, K. L.  
Stability of hydromagnetic flows: Part 3 1277  
On boundedness of magnetohydrodynamic flows: Part 2 4581
- Arora, N. L.  
An integral-transform method for shock-shock interaction studies 5333
- Arora, S. K.  
Precise determination of epicenters and origin times of surface focus seismic events 9114
- Aroutiunov, R. A.  
Resistance to cavitation of concrete for hydraulic structures 3470
- Arpaci, V. S.  
Effect of thermal radiation on the laminar free convection from a heated vertical plate 8922  
See also Farn, C. L. S. 2030  
Vest, C. M. 7954
- Arrington, J. P.  
Heat-transfer and pressure distributions due to sinusoidal distortions on a flat plate at Mach 20 in helium 1835
- Arseev, A. V.  
See Arseeva, N. V. 5310
- Arseeva, N. V.  
Investigation of free submerged jets 5310
- Arsentev, V. V.  
On the theory of pulse discharge in a liquid 2095
- Arslanov, A. M.  
Beam of least weight in the case of the action of random loads 1757
- Artamonov, A. Ya.  
Interaction of machine part materials with lubricants during friction 9992
- Artemov, E. A.  
Forced oscillations of a free shaft with friction 183
- Artemov, Z. P.  
See Vyrvo, V. M. 988
- Artemyan, G. L.  
See Minasaryan, A. A. 7916
- Arthurs, A. M.  
See Robinson, P. D. 4838
- Arthurs, T. D.  
See Holbeck, H. J. 6019
- Artjushkov, L. S.  
Wall effect correction for shallow water model tests 8273
- Artobolevskii, I. I.  
Equations of motion for a mechanical system containing a variator 4301  
Synthesis of a mechanical system with a variator when the motion of one of its links is given 8723
- Artyukhin, Yu. P.  
On the stability of an anisotropic cylindrical shell 7743  
Calculation of orthotropic plates and shells 9371
- Arulanandan, K.  
See Mitchell, J. K. 6058
- Arunachalam, S. A.  
See Eisenklam, P. 3715
- Arup, O. N.  
Sydney Opera House 7906
- Arutiunian, N. Kh.  
Contact problems of creep theory 4953
- Arutyunyan, G. M.  
Accumulation of a shock wave on a wedge moving with supersonic velocity 2633
- Arzamastsev, D. A.  
Equivalent equations for the control system of steam turbines in high-capacity units 3741
- Arzelies, H.  
Tension forces in a fluid in movement: Return to the fundamental equation 8747
- Asada, A.  
See Kawakami, F. 2452
- Asahina, K.  
See Hamada, M. 1632
- Asai, K.  
See Sawaragi, Y. 38
- Asai, T.  
On the characteristics of cellular cumulus convection 719
- Asaki, Z.  
See Fukuda, M. 2129
- Asakura, T.  
See Mine, H. 3012
- Asami, K.  
See Terasawa, M. 6954
- Asanbaev, Yu. A.  
Simulation of startup and shutdown 798
- Asano, S.  
Stress tensor of a finite dislocation 6746
- Asanov, R. A.  
Static scalar and electric fields in Einstein's theory of relativity 4921
- Asanuma, T.  
See Namba, M. 8019
- Asbridge, J. R.  
See Hundhausen, A. J. 8253
- Aschieri, F.  
Experiences on a model of the stacks of a power plant 6245



- Ashbrook, R. L.  
A survey of salt deposits in compressor of flight gas turbine engines 5550
- Ashby, G. C., Jr.  
Aerodynamic characteristics of a modified cone-conical-frustum entry configuration at Mach 6.0 1348
- Ashihara, O.  
See Tamao, T. 7331
- Ashino, I.  
Theory of laminar flows in rounded pipe entrance: Part 1, In very slow flows when mass force is negligible 8736  
On the theory of the additional loss at the pipe entrance in viscous fluid: Part 1, On the influence of rounded entrance 8743
- Ashley, H.  
Expanding the consciousness of the aeroelastician 3801
- Ashmarin, Yu. A.  
Stresses near a circular opening in an orthotropic cylindrical shell 3176
- Ashmore, P. G.  
Experimental investigations of conductive and convective heat transfer in relation to thermal ignitions 6433
- Ashranov, E. A.  
See Averenkova, G. I. 422
- Ashratov, E. A.  
Calculations of axisymmetric jet leaving a nozzle at jet pressure lower than the pressure in the surrounding medium 2636
- Ashton, J. E.  
Linear viscoelastic boundary value problems 1594  
Analysis of three-layer viscoelastic half-space 9328
- Ashwell, D. G.  
See Chauhan, A. P. 9424
- Ashworth, T.  
See Rechowicz, M. 6386
- Askar, A.  
Linear theory of hereditary micropolar materials 7638
- Askerov, B. A.  
The change of the conditions of motion and the lowering of resistance during the insertion of particles into a stream of liquid 3441
- Aslam, M.  
See Coates, D. F. 6077
- Aslanov, S. K.  
Instability criteria of deflagration development and analogy of the process of combustion in detonation waves and rocket motors 584
- Asokan, K.  
Analysis of machine tool elements by models 6858
- Astarita, G.  
See Marrucci, G. 2581
- Astre, P.  
Simple traction applied to an infinite medium, containing a smooth spheric inclusion 9306
- Atabek, H. B.  
Wave propagation through a viscous fluid contained in a tethered, initially stressed, orthotropic elastic tube 7469
- Athans, M.  
See Kleinman, D. L. 8369
- Atherton, D. P.  
See Balasubramanian, R. 2221
- Atkin, R. J.  
Completeness theorems for linearized theories of interacting continua 2318
- Atkins, A. G.  
See Caddell, R. M. 5172
- Atkinson, C.  
On axially symmetric expanding boundary value problems in classical elasticity 4162  
The flow of energy into the tip of a moving crack 6100  
See also Webb, D. 9304
- Atkinson, C. P.  
Symmetric arc solutions of  $\ddot{\xi} = \xi^n$  5752
- Atkinson, J. D.  
Spectral density of piecewise linear first order systems excited by white noise 4841  
First order piecewise linear systems with random parametric excitation 7776
- Atkinson, P.  
On the choice of method for the calculation of stress in marine propellers 7446
- Atrashenko, A. P.  
Successive method of calculating the flow of gas with solid admixtures in a channel of variable section 9097
- Atsumi, A.  
See Kurashige, M. 2932  
Kurashige, M. 6533
- Attia, E. A.  
Low-temperature internal friction of plastically deformed aluminum 7655
- Attura, G.  
See Bellville, J. W. 5834
- Attwood, D.  
See Abele, M. 2062
- Au, R. H. C.  
A theoretical and experimental investigation of the compressible laminar wake behind a long slender cylinder 4379
- Aubin, J.-P.  
Evaluation of truncation errors in the approximation of Sobolev spaces 5780
- Aubry, M.  
Dynamic analysis of structural elements of protective structures 5249
- Auchere, D.  
Experimental determination of the trajectory of the piston of a shock tube 7198
- Aufdermaur, A. N.  
A wind tunnel investigation on the local heat transfer from a sphere, including the influence of turbulence and roughness 8080
- Augusti, G.  
Buckling of inelastic arches: A simple model 3202
- Instability of struts subject to radiant heat 7726  
On the limit analysis of I-beams with warping restraints 8685
- Aulds, D. D.  
Three-fluid heat exchanger effectiveness 6422
- Aung, W.  
See Goldstein, R. J. 3677
- Aurand, K.  
Recording counter for the continuous determination of the concentration of pulverulent air pollutants 4735
- Auslander, G.  
The equation of state of real fluids 8894
- Austin, E. R.  
High-speed impact forming of metals: Part 1, Extrusion of aluminum and copper; Part 2, Extrusion of steel and titanium 8610
- Austin, M. E.  
Azimuth and elevation errors inherent in sound-ranging calculations 2919
- Avallone, E. A.  
See O'Connor, J. J. 9991
- Avdeev, V. P.  
A universal measuring device of the level of liquids and viscous media 1170
- Averenkova, G. I.  
Efflux of a supersonic jet into a vacuum 422
- Averson, A. E.  
Laws of ignition of condensed explosive systems with perfect heat transfer at the surface and allowance for burnup 8952
- Avez, A.  
See Arnold, V. I. 857
- Avi-Itzhak, B.  
Mathematical models for outgoing traffic flow in an airport terminal 9202
- Avitzur, B.  
Analysis of central bursting defects in extrusion and wire drawing 2462
- Avram, C.  
Tests concerning the partial plastification of bent concrete members 3404  
Photoelastic and analytic investigation of stress concentration at the crack end in a beam subjected to pure bending 6130
- Avramchenko, R. F.  
Fuel reserves optimal for a given maneuver with fixed motor parameters 2079
- Avy, A. P.  
Comparison of dust samplers and sampling methods 2953
- Awano, M.  
See Ohashi, K. 5646
- Awatani, J.  
A microscopic study of metals fatigued at ultrasonic frequency 8636
- Awojobi, A. O.  
Torsional vibration of a rigid circular body on an infinite elastic stratum 9402

- Axford, W. I.  
See Einaudi, F. 2851
- Aydelott, J. C.  
Effect of size on normal-gravity self-pressurization of spherical liquid hydrogen tankage 8039
- Ayer, F. N.  
Grid moment maximization by mathematical programming 318
- Ayling, A. V.  
A transistorized control unit for accurate gas-pressure measurement with strain-gauge pressure transducers 503
- Azar, J. J.  
See Hensley, R. C. 7890
- Azer, N. Z.  
Thermal entry length for turbulent flow of liquid metals in pipes with constant wall heat flux 8064
- Azimi, Sh. A.  
See Kalinin, A. V. 2432
- Azimov, R. K.  
See Korotkov, P. A. 4462
- Azoory, S.  
See Bott, T. R. 3675
- B**
- Baba, Y.  
See Takagi, F. 3838  
Endo, K. 8638
- Babel, H. W.  
A biaxial fracture criterion for porous brittle materials 2474
- Babeshko, V. A.  
On an effective method of solution of certain integral equations of the theory of elasticity and mathematical physics 5764
- Babich, D. V.  
Formulation of the dynamic problem for shells in a Cosserat space  
Some dynamic problems of the theory of plates taking the momentum equations into account 4168  
5118
- Babichev, A. I.  
Determination of the reaction of compression wave in an elastic medium on a fixed rigid cylinder  
Unsteady motion of a rigid sphere and cylinder in an inhomogeneous elastic medium 227  
228
- Babicheva, E. V.  
Certain criteria for estimating the efficiency of integrated-circuit logic modules 9256
- Babitskii, V. I.  
Oscillations of a linear system with limitations during random loads 4153
- Babiy, G. B.  
See Nicol, A. A. 546
- Babkin, V. S.  
Energy losses in explosions in a sphere 585
- Babler, G. M.  
Effects of an external magnetic field on Landau damping in Maxwellian plasmas 9011
- Babloyan, A. A.  
Torsion of hemisphere 135  
Solution of some dual equations encountered in problems of the theory of elasticity 2301  
Solution of the mixed problem of the theory of elasticity for a circular ring 8396  
Solution of the mixed problem of the theory of elasticity for a circular ring 9285  
See also Aleksandryan, M. A. 8323
- Babukha, G. L.  
The conventional method of averaging the dimensions of particles of a solid dispersible material in calculations of the convection heat transfer in two-phase flows 7416
- Babuska, I.  
Problems of optimization and numerical stability in computations 4851
- Bach, D. R.  
See Leonard, T. A. 5625
- Bach, G. G.  
Higher-order perturbation solutions for blast waves 9916
- Back, L. H.  
Flow and heat transfer in a turbulent boundary layer with large acceleration parameter 7995  
Laminar heat transfer in electrically conducting fluids flowing in parallel plate channels 9004
- Backus, G. E.  
Application of a nonlinear boundary-value problem for Laplace's equation to gravity and geomagnetic intensity surveys 2182
- Badri Narayanan, M. A.  
Reverse transition from turbulent to laminar boundary layer in a highly accelerated flow 5395  
On the criteria for reverse transition in a two-dimensional boundary layer flow 6300
- Baeck, H. S.  
Practical servomechanism design 9227
- Baehr, H. D.  
On defining energy efficiencies: A systematic investigation  
Thermodynamic functions for ideal gases up to 6000°K: Tables for Ar, C, H, N, O, S and 24 of their two- and three-atomic compounds 1938  
5463  
The exergy efficiency of combustion chambers in gas turbine installations 5535
- Baer, A. D.  
An approximate but complete model for the ignition response of solid propellants 2817  
See also Oberg, C. L. 2826
- Baganoff, D.  
See Baganoff, F. 7860
- Baganoff, F.  
Crack detection in a structural beam through cross-correlation analysis 7860
- Bagdasaryan, G. E.  
Stability of a cylindrical shell in an electromagnetic field 5062
- Bagdov, A. G.  
Some nonlinear problems of the motion of a compressible fluid 4387  
Determination of the solution on the front of a weak shock wave close to a turning-point 5338  
The motion of a cone in a compressible liquid 7094
- Bagirova, B. M.  
Solution of a system of two-partial differential equations with variable coefficients and its use in the theory of long cylindrical shells 137
- Baguzin, V. I.  
Effect of certain factors on the critical brittleness temperature in determining it by the form of a break 8619
- Bahn, G. S.  
Selection of recombination rate constants for H-F-O reactions 7302
- Bahn, M. M.  
ALSEP system structural dynamics study 6850
- Bahuaud, J.  
Study of the Poisson coefficient for infinitesimal and finite elastic and elastoplastic deformations 7590
- Bailey, H. E.  
See Lomax, H. 7119
- Bailey, N. T. J.  
Stochastic birth, death and migration processes for spatially distributed populations 9195
- Bailey, P. B.  
On the interval of convergence of Picard's iteration 770  
Existence from uniqueness for two point boundary value problems 8318
- Baimbetov, F. B.  
Electron coefficient of viscosity of a weakly turbulent plasma 1276
- Bain, J. A.  
See Levy, S. 5836
- Bainbridge, G. R.  
Three generations of nuclear power stations 3753
- Bainbridge, N. W.  
See Nordon, P. 4746
- Baines, W. D.  
See Lau, Y. L. 7151
- Baird, J. D.  
See Severy, D. M. 3353
- Bakelman, I. Ya.  
Advanced geometry 2
- Baker, A. A.  
The fatigue of fiber-reinforced aluminum 4230
- Baker, A. J.  
See Benenson, D. M. 1313
- Baker, B. R.  
Yielding and brittle cracking of an orthotropic strip 6928  
Tearing of viscous fibers 8630
- Baker, C. T. H.  
On the nature of certain quadrature formulas and their errors 9213

- Baker, E. H.**  
Experimental investigation of sandwich cylinders and cones subjected to axial compression 5067
- Baker, J. G.**  
See Ju, F. D. 6123
- Baker, J. M.**  
Recent approaches for trickling filter design 2948
- Baker, L., Jr.**  
See Witte, L. C. 7247
- Baker, R. C.**  
Solutions of the electromagnetic flowmeter equation for cylindrical geometries 1931
- Baker, W. E.**  
See Hoesse, F. O. 5629
- Bakholdin, B. V.**  
Magnitude of stresses in piles during driving 6062
- Bakhtar, F.**  
See Austin, E. R. 8610
- Bakradze, I. I.**  
Effect of elastic strain on the dynamic strength of cylindrical straight-toothed transmissions made from polymer materials 346
- Bakulev, V. I.**  
Calculation of turbulent jets of real gas 9688
- Balabukh, L. I.**  
New variant of the energy method of solving problems of the stability of plates without determining the critical stresses state 5051  
See also Alfutov, N. A. 2390
- Balaceanu, C.**  
See Nicolau, E. 3898
- Balachandran, C. G.**  
Diffusion of the decaying sound field 4682
- Balakina, L. M.**  
The stress state in earthquake foci and the elastic stress field of the Earth 5677
- Balakrishnan, A. V.**  
On a new computing technique in optimal control theory and the maximum principle 1519
- Balakshin, O. B.**  
Method of taking into account the compressibility of the air in the calculation of flow-through elements of pneumatic devices 1826
- Balasubramanian, N.**  
See McNally, R. N. 3474
- Balasubramanian, R.**  
Response of multidimensional nonlinearities to inputs which are separable processes 2221
- Balcerzak, M. J.**  
See Johnson, M. R. 4653
- Baldo, A. F.**  
See Perez, M. 4531
- Baldwin, D. E.**  
Wave propagation in nonuniform plasmas near the second electron cyclotron harmonic 8117
- Baldwin, L. V.**  
Intermittency of far wake turbulence 3558
- Baldwin, P.**  
Finite amplitude convection in a self-gravitating fluid sphere containing heat sources 2784
- Balepin, V. M.**  
Determination of the dynamic flexibilities of a system with friction 5121
- Balitskii, S. A.**  
Flow of superheated liquid in a vacuum 3533
- Balje, O. E.**  
Axial cascade technology and application to flow path designs: Part 1, Axial cascade technology; Part 2, Application of data to flow path designs 8021
- Ball, K. O. W.**  
Similarity solutions for the compressible laminar boundary layer with heat and mass transfer 5391
- Balla, A.**  
See Turabi, D. A. 5157  
Turabi, D. A. 7818
- Ballintijn, C. M.**  
Shell develops new heat-flowmeter 1993
- Ballou, J.**  
See Coppens, A. B. 4690
- Balmer, H. A.**  
See Witmer, E. A. 6971
- Baltov, A.**  
Plane stress state of elastic/viscoplastic bodies 5894
- Baltrukonis, J. H.**  
The dynamics of solid propellant rocket motors 4579
- Baltzer, R. A.**  
Column separation accompanying liquid transients in pipes 360  
Computer simulation of unsteady flows in waterways 2585
- Baluev, E. D.**  
Study of the aerodynamic structure of gas flow in a cyclone chamber 6319
- Balut, N.**  
See Mateescu, D. 4272
- Balyberdin, V. V.**  
Method of obtaining a stable system of plasma vortices 1315
- Balziser, R. E.**  
See Buhr, H. O. 3685
- Bamberger, E. N.**  
Fatigue life of 120-mm bore ball bearings at 600F with fluorocarbon, polyphenyl ether, and synthetic paraffinic base lubricants 2172  
See also Zaretsky, E. V. 4794
- Bame, S. J.**  
See Hundhausen, A. J. 8253
- Bampton, M. C. C.**  
See Craig, R. R., Jr. 5841
- Banasiak, M.**  
The problem of stability loss of rectangular plates with linearly varying thickness 921
- Bandle, C.**  
On Stekloff's eigenvalue problem: Isoperimetric inequalities for symmetric regions 9180
- Bandyopadhyay, K. K.**  
A method for estimation of Chezy's constant in tidal river 3453  
Design of a tidal channel friction simulator 5793
- Banerjee, A. K.**  
Effect of nonlinearity of kinetic friction and hysteresis on the stick-slip process 4772
- Banerjee, B.**  
Large deflection of an orthotropic circular plate under a concentrated load 152  
Large deflection of a semicircular plate under a uniform load 2359  
Deflection of a square plate of variable thickness under a variable load and uniform tension in the middle plane of the plate 5001  
Large amplitude free vibration of an isosceles right-angled triangular plate with simply supported edges 6001
- Banerjee, M. B.**  
On the stability of a heterogeneous fluid layer heated from above 4527
- Banerjee, S.**  
See Chowdhury, S. B. 3826
- Banerjee, S. P.**  
Analysis of elliptic-paraboloid shell 5934
- Bankoff, S. G.**  
Connection theorems in nonconvex programming 3015
- Banks, C. B., Jr.**  
On certain two-dimensional applications of the couple stress theory 3112
- Banks, H. T.**  
Necessary conditions for control problems with variable time lags 2260
- Banner, A.**  
Measurements of the particle velocity and pressure of the ambient noise in a shallow bay 6514
- Bannikov, A. I.**  
Thermoelectric method of measuring velocity fluctuations in a gas system 4458
- Bannink, W. J.**  
Lift and drag characteristics of a delta-wing-half-cone configuration with subsonic leading edges, using slender-body theory 5411  
Determination of the position of a shock wave from Pitot tube experiments 9679
- Bansal, T. D.**  
Empirical relationship for computation of free convection from a single horizontal cylinder to fluids 8912
- Banshoya, J.**  
Development of energy-absorbing steering column assembly for small passenger cars 3429
- Bansi Lal, N.**  
The strength concept and creep in plastic clays 6903
- Banut, V.**  
See Rautu, S. 4255

- Bapat, V. A.**  
Response of undamped nonlinear spring mass systems subjected to constant force excitation 6800
- Bapeswara, V. V.**  
On the number of cut sets of a class of graphs 6627
- Barailler, L.**  
New developments in mathematical models of sea waves: Calculation of wave diffraction over an uneven bottom 6337
- Barakat, R.**  
Nonlinear periodic capillary-gravity waves on a fluid of finite depth 5428  
Incompressible flow around porous two-dimensional sails and wings 6310
- Baral, M. C.**  
Flow of two conducting immiscible liquids between two parallel porous moving plates under a transverse magnetic field 8987
- Barantsev, R. G.**  
Resolution of a boundary transformant 18  
High rank moment in slightly rarefied gas 6282
- Barat, J.**  
See Hatvany, J. 50
- Baratono, J. R.**  
Scale-model wind-tunnel acoustic data 8173
- Barattini, A.**  
See Iernetti, G. 4698
- Barbashin, E. A.**  
On the construction of Lyapunov functions 5756  
Forced sliding regimes in automatic control systems 5797  
Introduction to the theory of stability 9236
- Barbe, A.**  
Determination of a relation expressing the discharge of a rectangular weir as a function of the total head 7939
- Barbee, D. G.**  
Incompressible flow induced by an infinite isothermal disk rotating in a rarefied gas 5367
- Barber, J. R.**  
The thermal distortion due to a uniform circular heat source on the surface of a semi-infinite solid 7391
- Barbescu, B.**  
On the possible use of the exhaust gas analysis in the determination of four-stroke diesel engine scavenging 8972
- Barboni, R.**  
See Santini, P. 3800
- Barchet, W. R.**  
The validity of the spherical cap approximation in heterogeneous nucleation 6416
- Barcion, A.**  
A theoretical and experimental model for a dust devil 2604
- Barcion, V.**  
On the steady motions produced by a stable stratification in a rapidly rotating fluid 378
- Stewartson layers in transient rotating fluid flows 4368
- Bardell, P. H.**  
See Wilfinger, R. J. 952
- Barden, L.**  
Primary and secondary consolidation of clay and peat 980  
Volume change characteristics of unsaturated clay 8581
- Bardos, V.**  
Methodical remarks on the investigation of Pitman curves whose shape resembles aerodynamic profiles 2690
- Barduyn, A. J.**  
See Reejhsinghani, N. S. 2783
- Bardzimos, N. G.**  
See Ezikashvili, O. S. 9151
- Barenblatt, G. I.**  
Vibrational creep of polymer materials 6730  
The modulus of cohesion in the theory of cracks 6933
- Barger, R. L.**  
Development of sonic-boom signatures in a stratified atmosphere 1114  
Design of bodies to produce specified sonic-boom signatures 1888  
Investigation of a class of bodies that generate far-field sonic-boom shock strength and impulse independent of body length and volume 7097
- Bargmann, H.**  
Buckling of viscoelastic Maxwell plates under random temperature 9953
- Barkan, D. D.**  
Trends in the development of soil dynamics 4193
- Barke, V. N.**  
Balancing of flexible rotors on isotropic supports 184
- Barker, L. K.**  
Simplified technique for determining pericyynthion altitude of lunar orbits 2074
- Barkley, R. A.**  
The Kuroshio-Oyashio front as a compound vortex street 6564
- Barla, G.**  
Analysis of the borehole stress-relief method in rocks with rheological properties 254
- Barlow, D. A.**  
A thermal size effect in friction tests 8274
- Barmin, A. A.**  
Shock waves of ionized gases in an electromagnetic field 4608
- Barnard, A. C. L.**  
Numerical hydrodynamic calculations for branching pulsatile flow in flexible tubes 1440
- Barnes, A.**  
Stochastic electron heating and hydromagnetic wave damping 606  
Quasilinear theory of hydromagnetic waves in collisionless plasma 8996
- Barnes, H. A.**  
Dynamic similarity and drag reduction in flow of elastic liquids through curved pipes 353  
See also Thomas, H. W. 5450
- Barnes, T. G.**  
See Nash, D. M., Jr. 5684
- Barnett, P.**  
Measurement and analysis of spacecraft separation transient response for Mariner-type spacecraft 2896
- Barnett, S.**  
Some results on the sensitivity and synthesis of asymptotically stable linear and nonlinear systems 2220
- Barnett, T. P.**  
On the generation, dissipation, and prediction of ocean wind waves 1393  
A note on an overshoot effect in wind-generated waves 5688
- Barnett, V. D.**  
See Porter, K. E. 9969
- Barnoski, R. L.**  
On the single highest peak response of a dual oscillator to random excitation 213  
The maximum response to random excitation of distributed structures with rectangular geometry 3250  
Concentrated mass effects on the vibration of corner-supported rectangular plates 6006
- Barnwell, R. W.**  
Numerical results for the diffraction of a normal shock wave by a sphere and for the subsequent transient flow 415  
Inviscid radiating shock layers about spheres traveling at hyperbolic speeds in air 7986
- Baron, J. R.**  
See Sussman, M. B. 1854
- Baron, L. I.**  
Method of determining the abrasion of soft mineral rocks and materials 3876
- Baroni, B.**  
See Cortesini, R. 3894
- Barp, B.**  
The safety of structural components under conditions of general yielding 1755
- Barquins, M.**  
Behavior of monocrystalline copper in contact with a hemispherical indenter 3868
- Barr, A. D. S.**  
See Johnston, R. A. 8553
- Barr, D. I. H.**  
Densimetric exchange flow in rectangular channels: Part 3, Large scale experiments 368  
Discrimination formulation of  $n$  term nondimensional functional equations from  $(n + 1)$  term dimensionally homogeneous equations, with particular reference to incompressible viscous flow 375  
Nondimensional solutions to open-channel flow problems 4324
- Barr, W. L.**  
See Oleson, N. L. 620



- Barreto, E.  
Nonthermal ionization caused by aerodynamic discontinuities in charged aerosol jets 2639
- Barrett, N. T.  
See Home, M. R. 8694
- Barriol, R.  
Laminar boundary layer of a flat plate at zero angle of incidence in an air stream with a velocity fluctuating sinusoidally with time 5376
- Barron, R. F.  
See Aulds, D. D. 6422
- Barrow, H.  
See Lee, K. 5517
- Barsoum, F. R.  
See Bassali, W. A. 4999
- Barta, J.  
Buckling of an elastic straight rod with circular cross section due to torsion 3194
- Bartenev, G. M.  
The nature of the deformation of inorganic glasses during micro-indentation 2327  
Structure of glass fibers 6105
- Barthet, H.  
See Thirriot, C. 2591
- Bartky, C. D.  
Theoretical frequency averages for the emittance of a homogeneous gas-particle cloud 1982
- Bartlett, E. P.  
See Kendall, R. M. 4415
- Bartlett, J. H.  
Motion under a periodic cubic force 1454
- Bartlett, R. S.  
Tables of supersonic symmetrical flow around right circular cones with and without the addition of heat at the wave 4372
- Bartlett, R. W.  
Effect of liquid surface tension on maximum particle size in two-phase nozzle flow 2609
- Barton, H. J.  
Simultaneous heat and mass transfer through laminar boundary layers in combined forced and free convection 9841
- Barton, R. L.  
See Eichblatt, D. L. 1140
- Barton, R. M.  
Prestressed precast concrete railroad bridges 5242
- Bartoo, E. R.  
See Knoll, R. H. 1225
- Bartosek, V.  
Stability of flat thermal flux in a slab reactor 8980
- Barzykin, V. V.  
See Averson, A. E. 8952
- Basavanna, B. M.  
See Siva Reddy, A. 245
- Bashaw, J.  
Thermoelasticity of networks in swelling equilibrium 5631
- Basheev, S. M.  
The bending strength of epicyclic gear teeth and rims 4302
- Bashilov, V. A.  
Spectroscopic investigation of an ionized gas in an electromagnetic shock tube 637
- Baskakev, A. P.  
Thermal regime of batch furnaces for heating metal in a fluidized bed 2786
- Baslavskii, I. A.  
Rock pressure on the lining of a tunnel 335
- Basque, G.  
Comparison of a two-dimensional snowplough model with experiment 3780
- Bass, R. L.  
See Lamb, J. P. 6291
- Bass, R. W.  
See Webber, R. F. 3073
- Bassali, W. A.  
Bending of an eccentrically loaded and concentrically supported thin circular plate: Part 2 4999
- Bassanini, P.  
Influence of the accommodation coefficient on the heat transfer in a rarefied gas 9699  
See also Cercignani, C. 9704
- Basu, A. K.  
A more exact computation of failure loads of composite columns 4095
- Basu, B.  
See Ghosh, A. 8054
- Basu, S. K.  
See Mukherjee, S. N. 996  
Asokan, K. 6858
- Basu, S. P.  
On heat transfer in nucleate boiling: Part 2 3705
- Bataille, J.  
Translation solutions of the slow two-phase flow problem in a Hele-Shaw channel 1089  
See also Dupeyrat, G. 8230
- Batchelor, G. K.  
The scientific papers of Sir Geoffrey Ingram Taylor: Vol. 3, Aerodynamics and the mechanics of projectiles and explosions 1875
- Bate, H. G.  
Orifice plate calibration in a dilute polymer solution 1095
- Bates, L.  
Entrainment patterns of screw hopper dischargers 9598
- Batham, J. P.  
A reattachment criterion for turbulent supersonic separated flows 7141
- Bathla, P. S.  
Effect of surroundings on the transient energy transfer in a layer of radiating gas 4532  
See also Viskanta, R. 2790
- Batskova, I.  
See Tondl, A. 9459
- Batt, R. S. W.  
See Stainthorp, F. P. 1905
- Battjes, J. A.  
Refraction of water waves 3580  
Refraction of water waves 8243
- Bauch, W.  
Flood waves in rivers with and without reservoirs 2587
- Bauder, U.  
Radiation from high-pressure plasmas 3786  
Measurement of highest temperatures 5471
- Bauer, A.  
See Winkler, F. 6150
- Bauer, A. B.  
Near-wake injection experiments 2638  
Fluid drag on a sphere rolling in a tube 7936
- Bauer, G. E.  
Critical consideration of an electrical earth-pressure measuring device 6072
- Bauer, H.  
An approximation procedure for adjusting controllers in the case of plants and nonrational transfer function: Part 1 8361
- Bauer, H. F.  
The response of a nonlinear  $n$ -degree of freedom system to pulse excitation 1661  
Interaction of a sloshing liquid with elastic containers 6346
- Bauer, S. H.  
Transient species generated during the pyrolysis of hydrocarbons 5531
- Bauer, V. O.  
Effect of constructional peculiarities of the fixing of the disks on the critical velocity of rotors 1668
- Baum, E.  
An interaction model of a supersonic laminar boundary layer on sharp and rounded backward facing steps 5388
- Baum, H. R.  
A model kinetic equation for an electron plasma 8133
- Baumeister, K. J.  
See Hendricks, R. C. 8086
- Baunack, F.  
Drying of useful dusts 5521
- Baust, E.  
Use of the Goetz aerosol spectrometer to measure the size spectra of polydispersed aerosols 7415
- Bavagnoli, F. G.  
On the location of the reattachment point of a turbulent supersonic boundary layer downward a step 1862
- Baxter, D. C.  
See Gagne, R. E. 5813
- Bayer, E.  
The relaxation theorem by Maxwell and some applications to viscometry 3440



- Bayer, R. G.  
On the significance of surface fatigue in sliding wear 4778  
Prediction of wear in a sliding system 7449
- Bayer, Z.  
The problems of high-temperature thermal cycles 517  
On the thermodynamics of the non-adiabatic expansion 1945
- Baysinger, F. R.  
See Liptak, J. A. 2567
- Bayuk, E. I.  
See Silaeva, O. I. 3294
- Bazant, Z.  
Problems of foundation engineering 986
- Bazant, Z. P.  
Conditions of instability of continuous medium and their application to thick slabs and to half-space 4093  
Linear creep problems solved by a succession of generalized thermoelasticity problems 4954
- Bazarov, S. M.  
See Blokh, A. G. 5662
- Bazergui, A.  
Embedded strain gages for the measurement of strains in rolling contact 6134
- Bazhenov, G. M.  
Determination of the orbit of an artificial Earth satellite from six of its topocentric positions 9034
- Bazhenova, T. V.  
Secondary phenomena during the reflection of shock waves in argon 3514
- Bazley, N.  
Remarks on the bifurcation of solutions of a nonlinear eigenvalue problem 933
- Bazley, N. W.  
Upper and lower bounds for the frequencies of rectangular clamped plates 186
- Beam, R. M.  
On the phenomenon of thermoelastic instability (thermal flutter) of booms with open cross section 7395
- Beasley, W. D.  
See Brooks, J. D. 8147
- Beaton, G. V.  
Apparatus for the determination of internal friction and Young's modulus at high frequencies 2423
- Beatrice, C.  
Study of servo-controls by their modal response 9232
- Beatty, M. F.  
Stability of the undistorted states of isotropic elastic body 4929  
Some experiments on the stability of circular rubber bars under end thrust 8504
- Beaufait, F.  
Experimental study of reinforced concrete frames subjected to alternating sway forces 4268
- Beck, A.  
See McCloy, D. 3462
- Beck, J. V.  
Surface heat flux determination using an integral method 533  
Stability of a squeeze-film journal bearing 6582
- Beck, M. S.  
Direct digital control of chemical processes: Part 4 822  
Direct digital control of chemical processes: Part 3 4877
- Beck, T. R.  
Stress corrosion cracking of titanium alloys: Part 2, An electrochemical mechanism 1738
- Beckenbach, E. F.  
Applied combinatorial mathematics 3901
- Becker, E. W.  
Ten stage cascade nozzle enrichment 4385
- Becker, H.  
Pressure stability of orthotropic prolate spheroids 924
- Becker, H. A.  
On the light-scatter technique for the study of turbulence and mixing 8011
- Becker, O.  
On the dynamic testing of compasses 9461
- Becker, R.  
Theory of heat: 2nd edition 4479  
Development and construction of an instrument for measuring the maximum rotation angle of a watch balance wheel 6196
- Beckers, P.  
See Sander, G. 7873
- Beckett, C. W.  
See Cassidy, E. C. 5624
- Beckett, R.  
An evaluation of the kinematics of gait by minimum energy 9157
- Beckwith, I. E.  
Detailed description and results of a method for computing mean and fluctuating quantities in turbulent boundary layers 438
- Beddow, J. K.  
The fatigue of metals in liquid metal environments 3344
- Bedenig, D.  
Indirect methods of measurement for studies on pebble bed flow 2943  
Investigations on the movement of fuel elements in the core of a pebble bed reactor 9860
- Bedi, D. S.  
Hydrodynamic model for cold strip rolling 8613
- Bednarczyk, H.  
On the form of the basic equations of continuum mechanics and singular surfaces 4678
- Bedwell, T. C., Jr.  
Proceedings of the Third International Symposium on bioastronautics and the exploration of space 9154
- Beevers, C. J.  
See Edmonds, D. V. 6126
- Beggs, J. S.  
Rendezvous simulator kinematics 9911
- Behrens, E.  
Elastic constants of filamentary composites with rectangular symmetry 969  
Dynamic testing of composite materials 6148  
Elastic constants of composite materials 7620
- Behrens, H.  
See Dahl, W. 1720
- Bekbaev, S.  
Investigation of some critical cases of the stability of almost-periodic motions 4003
- Beketov, A. K.  
Improved technology in silicization of loessial soils 9491
- Bekey, G. A.  
See Nardizzi, L. R. 846
- Belan, N. V.  
Determination of flow form during the development of rotating stall zones in a rotor 8867
- Beldie, I. P.  
Determination of the shear modulus of spruce wood 7622
- Belenkii, I. M.  
Application of the method of associated fields to spatial self-contained systems 4122  
On the problem of  $n$ -stationary centers 6498  
Applying the method of adjoint fields to nonlinear systems 7491  
Cycles and quasi-indices of singular points of conservative systems 7749
- Belenkii, V. Z.  
Flow of a viscous incompressible fluid about a plane semi-infinite plate: Formal asymptote in Cartesian coordinates 1816
- Beletskii, V. V.  
Libration boundaries of a triaxial satellite in a gravitational field 1339  
Determination of orientation and rotation of artificial satellites from measured data 6501
- Belforte, G.  
A new fluidic element: The diode with a wall 2610
- Belgal, P. R.  
See Ramana Murthy, K. V. 4330
- Belgaumkar, B. M.  
Effect of root-fixure conditions on the damping characteristics of cantilever beams 8536
- Belik, G. I.  
The contact problem of a half-plane of a material whose elasticity model is a deep step-function 3124
- Belik, L.  
An approximate solution for kinetic energy of secondary flow in blade cascades 6348
- Belikov, L. B.  
Measuring the dynamic characteristics of rubber elastic elements 3381
- Belisario, G.  
Spark erosion machining: Experimental research on the forces acting on a workpiece 3313

- Bell, A. O.**  
Wave-excited hull vibration 2158
- Bell, A. W.**  
See **Soifer, M. T.** 5985
- Bell, D.**  
Stability analysis of an adaptive aircraft-control system: Part 2, Small signal stability analysis 2273
- Bell, F. L.**  
See **Lin, C.-W.** 1673
- Bell, J. F.**  
The physics of large deformation of crystalline solids 5127  
Large-deformation dynamic plasticity at an elastic-plastic interface 6887  
On the direct measurement of very large strain at high strain rates 6972
- Bell, J. M.**  
General slope stability analysis 8596
- Bell, K. J.**  
See **Owhadi, A.** 9816
- Bell, R.**  
Damping action in machine tool slideways 4149
- Bell, T. G.**  
Effect of phase errors on the direction-finding precision of hydrophone arrays 8196
- Bellamy, C. J.**  
See **McCormick, M.** 2211
- Bellini-Morante, A.**  
On the principle of the gyroscopic effect 1559
- Bellevaux, C.**  
Free nonlinear surfaces of uncovered canals 1068
- Bellhouse, B. J.**  
The measurement of fluctuating skin friction in air with heated thin-film gages 1873
- Bellman, R.**  
Mathematical models of the mind On the validity of truncation for infinite systems of ordinary differential equations associated with nonlinear partial differential equations 3917  
A new technique for the numerical solution of higher order nonlinear parabolic equations 3918
- Bellomo, E.**  
A numerical program for dealing with finite amplitude disturbances in plane parallel laminar flows 7136
- Bellville, J. W.**  
Servo control of inhaled carbon dioxide 5834
- Belokon, A. V.**  
See **Aleksandrov, V. M.** 5765
- Belonosov, S. M.**  
The second boundary value problem for the differential equation of elastic equilibrium of a slanting cylindrical shell 904
- Belotserkovskii, O. M.**  
Supersonic flow of a gas about bodies of revolution 8775
- Belotserkovskii, S. M.**  
Calculation of the flow around wings of arbitrary planform over a wide range of angle of attack 6311
- Belousova, L. E.**  
Relation of radius to power for a thermal plasma of spherical shape 2846
- Belova, D. A.**  
Absolute stability of control systems having ambiguous backlash and stop nonlinearities 5807
- Belova, N. A.**  
Dirichlet problem for a toroidal segment 2304
- Belshaw, D. J.**  
See **Kirkpatrick, W. M.** 5153
- Belubekyan, M. V.**  
See **Bagdasaryan, G. E.** 5062
- Belyaev, S. P.**  
Method for transforming pressure drops  $\Delta p$  into pulses with a frequency proportional to  $\sqrt{\Delta p}$  6364
- Belyankin, F. P.**  
Polymer mechanics 7629
- Belyayev, V. Y.**  
Strength and deformability of steel plastic concrete beams and slabs under longtime action of dead load 2348
- Belytschko, T.**  
See **Hodge, P. G., Jr.** 8683
- Benade, A. H.**  
On the propagation of sound waves in a cylindrical conduit 7378
- Benami, A.**  
New head-loss tables for sprinkler laterals 6234
- Ben-Amoz, M.**  
A continuum approach to the theory of elastic waves in heterogeneous materials 5126
- Benarie, M.**  
See **Avy, A. P.** 2953
- Benca, S.**  
To the determination of the boundary stresses around a slot in a plate under tension, pressure, and pure shear 3114
- Bendavid, D.**  
See **Singer, J.** 6786
- Benedek, Z.**  
The scale effect of the nominal wake factor of single-screw ships 3861
- Benedict, J. V.**  
Stress-strain characteristics and tensile strength of unembalmed human tendon 752
- Benedict, R. P.**  
Fundamentals of temperature, pressure and flow measurements 6376
- Benson, D. M.**  
Diagnostics on steady-state cross-flow arcs: Part 1, Low current 1313  
See also **Prelewicz, D. A.** 3773
- Benes, J.**  
Cybernetic systems with automatic organization 3067
- Benetka, J.**  
Pressure distribution on a profile at the condition of transonic flow 7966
- Bengtson, R. D.**  
See **Olstad, W. B.** 1116
- Benham, P. P.**  
High-temperature low-cycle fatigue: Survey of British Work 3339  
See also **Williamson, J.** 6099
- Benington, C. K.**  
The railway wheelset and suspension unit as a closed-loop guidance control system: A method for performance improvement 2245
- Benis, A. M.**  
Rotational viscometry by torque relaxation at low shear rates with application to biological systems 3446  
Theory of non-Newtonian flow through porous media in narrow three-dimensional channels 6217
- Benit, E. J.**  
See **Vidrine, D. J.** 6910
- Benjamin, J. R.**  
Probabilistic structural analysis and design 3392
- Benjamin, T. B.**  
Gravity currents and related phenomena 2593  
Some developments in the theory of vortex breakdown 3484
- Ben-Menahem, A.**  
Multipolar elastic fields in a layered half-space 9315  
See also **Singh, S. J.** 5773
- Bennett, L.**  
See **Appoldt, F. A.** 2988
- Bennett-Cowell, B. N.**  
See **Ryley, D. J.** 696
- Benney, D. J.**  
Sequential time closures for interacting random waves 3576
- Benoist, P.**  
A new method of approximation of the Boltzmann equation 1979
- Benoit, H.**  
See **Gramain, P.** 7028
- Benson, D. C.**  
An elementary solution of a variational problem of aerodynamics 2705
- Benson, R. S.**  
The effect of delivery pipe length on the performance of a centrifugal compressor in a forced non-steady flow field 2729
- Benson, S. W.**  
Application of very low pressure pyrolysis to combustion kinetics 6439
- Bentall, R. H.**  
An elastic strip in plane rolling contact 6721
- Benthall, T. P.**  
Automatic load scheduling in a multi-area power system 3993
- Benton, E. R.**  
Solutions illustrating the decay of dissipation layers in Burgers' nonlinear diffusion equation 2683
- Bentsik, E.**  
On the possible simple motions of an artificial satellite subject to Newtonian forces 2082

- Ben Uri, J.  
See Tiroshi, I. 3059
- Benveniste, J. E.  
See Cheng, D. H. 1762
- Benvenuti, P.  
Determination of the cardinal complete system of mechanics 1556
- Bera, R.  
Buckling of anisotropic rectangular plates 5049  
Stability of thin plates under edge thrust due to large deflections, buckling being resisted by a force proportional to the displacement 5965  
Note on some simple cases of buckling of a thin annular circular and a sector plate of a variable rigidity under uniform compression 5967  
Stability of an anisotropic right-angled isosceles triangular plate with simply supported edges due to large deflections 7713
- Beranek, J.  
Automatic program-controlled machine-tools 828
- Beranek, L. L.  
Audience and chair absorption in large halls: Part 2 9063
- Beranek, W. J.  
Moire-method for plates 5206
- Berard, P.  
See Carbonell, E. 7217
- Berardi, G.  
On the friction between sands and construction materials 243  
On the state of stress in a heavy half-space with discontinuous boundary 863
- Berdichevskii, V. L.  
On nonlinear tensor functions in the theory of relativity 4014  
Use of variational methods in constructing models of continuous media with irreversible processes in the special theory of relativity 4920  
See also Sedov, L. I. 8447
- Berenson, P. J.  
See Soliman, M. 7273
- Berenyi, M.  
Examination of the force/displacement diagram with an electronic computer 319
- Berenyi, S. G.  
See Abdalla, K. L. 6339
- Berezantsev, V. G.  
Determination of the limiting resistance of sand soils under the point of a pile by means of static penetration 6063
- Berezhnoi, I. A.  
Strain-gage pressure transducer with a higher sensitivity 3614
- Berezin, Yu. A.  
Cylindrical waves of finite amplitude in a rarefied plasma 2039
- Berg, C. A.  
The character of plane deformation fields in isotropic incompressible nonlinear viscous fluids 5262
- Berg, G. J.  
Transient thermal behavior of ground electrodes: Part 1, Spherical electrodes; Part 2, Cylindrical electrodes 8041
- Berg, G. V.  
See Goel, S. C. 7911
- Berg, H. C.  
A method for separating according to mass a mixture of macromolecules or small particles suspended in a fluid: Part 1, Theory 355
- Berger, B. S.  
The inversion of the Laplace transform with applications to the vibrations of continuous elastic bodies 6799
- Berger, C. S.  
See Moran, F. 1543
- Berger, H.  
See Valid, R. 885
- Berger, R. T.  
Eccentrically loaded joints: Streamlined solutions for finding maximum bolt load 1051
- Berger, S. A.  
The incompressible laminar axisymmetric far wake 5373  
See also Au, R. H. C. 4379
- Berger, W.  
Water-hammer problems in long water-supply tunnels of large cross section 9777
- Bergeron, H. P.  
Pilot response in combined control tasks 5743
- Bergles, A. E.  
The influence of heated-surface vibration on pool boiling 9836
- Berglund, J. W.  
Interaction of a ring-reinforced shell and a fluid medium 959
- Bergman, R. M.  
An application of the method of asymptotic integration to the problem concerning the concentration of moment stresses 4936
- Berka, L.  
On the mathematical description of the deformation properties of viscoelastic materials 2323  
On tensors of the deformation of area 9293
- Berke, L.  
Experimental studies of the post-buckling behavior of complete spherical shells 6792
- Berker, R.  
On second-order fluids 7925
- Berkovich, D. M.  
Structural groups of mechanisms and the theory of contour construction of kinematic chains 9605
- Berkovich, E. S.  
See Krushchov, M. M. 732
- Berkovich, P. E.  
See Mossakovskii, V. I. 6937
- Berkovits, A.  
Primary creep of aluminum under incremental variation in stress 4955
- Berkovskii, B. M.  
Generalization of the law of thermal conductivity 8031
- Berkovskii, B. S.  
Stationary motion of a flexible wing in a finite fluid 5412
- Berlin, E. M.  
See Asanbaev, Yu. A. 798
- Berman, P. A.  
Design of solar cells for terrestrial use 519
- Bernaix, J.  
New laboratory methods of studying the mechanical properties of rocks 9501
- Bernard, J.  
See Destenay, J. 5278
- Bernd, L. H.  
Survey of the theory of mechanical face seals: Part 1, Characteristics of seals 2554  
Survey of the theory of mechanical face seals: Part 2, Friction and wear 3423
- Bernhardt, C. J.  
Ultimate moments and ultimate loads of reinforced concrete beams and columns of rectangular cross section 6980
- Berns, J. A.  
See Szabo, S. V. 5616
- Berns, R. R.  
Determination of optimum nozzle contours for the expansion of dissociated gases by methods of the variational calculus 9686
- Bernstein, S. V.  
See Arone, R. G. 1006
- Bernstein, A. L.  
See Armstrong, A. E. 651
- Bernstein, L.  
See Davies, W. R. 9674
- Bernstein, W.  
Streaming plasma transport and cut-off in transverse magnetic fields 1295
- Berrier, B. L.  
Transonic aerodynamic characteristics of powered models of several Apollo launch-escape vehicle configurations 1345  
Effect of plug and shroud geometry variables on plug-nozzle performance at transonic speeds 6276
- Berry, B. S.  
See Klokholm, E. 8661
- Berry, D. G.  
See Goldwag, E. 3599
- Berry, E. X.  
A mathematical framework for cloud models 6566
- Berry, G.  
Sound insulation in ships' cabins 9055
- Bershader, D.  
See Oettinger, P. E. 621  
Horn, K. P. 1298  
Kuiper, R. A. 9695

- Bert, C. W.**  
Analysis of ductile bursting in pressure vessels of texture-hardening and filament-wrapped materials 6999  
Buckling of cylindrical and conical sandwich shells with orthotropic facings 9394  
*See also* Reese, C. D. 2481  
James, T. K. 2482
- Bertero, V.**  
*See* Bresler, B. 4262
- Bertholf, L. D.**  
Numerical solution for two-dimensional elastic wave propagation in finite bars 9468
- Bertin, J. J.**  
*See* Voorhees, C. G. 9669
- Bertodo, R.**  
Precious metal alloys for high-temperature resistance strain gages 6136
- Bertolotti, R. L.**  
Effect of micromechanical stress concentrations on strength of porous glass 4219
- Bertoni, G.**  
Determination of the stability of a nonlinear system by comparison with another nonlinear stable system whose trajectories are known 3947
- Bespalova, E. I.**  
The stress state in sectorial shells of revolution with rigidly fastened meridional edges 6766
- Bessacini, A. F.**  
Automatic bearing rider torpedo simulation 2243
- Bessho, M.**  
Study into frame line configuration 5702
- Bessonov, V. G.**  
Correlation of similarity criteria of complex and partial problems 794
- Betchov, R.**  
Review of Kraichnan's theory of turbulence 456  
Stability of parallel flows 8758
- Bethel, H. E.**  
*See* Abbott, D. E. 5377  
Hankey, W. L. 6270
- Bethune, B.**  
Electrochemical studies of fretting corrosion 8281
- Betson, R. P.**  
Analytically derived unit graph and runoff 7427
- Bettanini, E.**  
*See* Trapanese, G. 6425
- Betz, A.**  
Introduction to the theory of flow machines 2725
- Beukelman, W.**  
*See* Gerritsma, J. 7445
- Beverloo, W. A.**  
Symposium: Behavior of viscous fluids, Part I: Flow and mixing of viscous fluids, (II) Measuring the flow resistance of non-Newtonian fluids in pipes 363  
*See also* Bruin, S. 5477
- Beyer, R. T.**  
*See* Coppens, A. B. 4690
- Bezier, P.**  
On some properties of solutions of linear elastostatic problems 866
- Bezvershenko, I. I.**  
Estimation of the solutions of nonlinear differential equations of dynamic processes in the drive lines of mechanisms by the method of S. A. Chaplygin 4213
- Bhadra, T. C.**  
On the acoustics of shocks generated by the rupture of diaphragms in a tube 2632
- Bhaduri, D.**  
Investigations on pulsating combustion 7300
- Bhandari, R. C.**  
*See* Chaudhary, D. R. 1207  
Chaudhary, D. R. 4747  
Chaudhary, D. R. 9974
- Bhanja, N.**  
Torsion of a large thick composite plate having transverse isotropy 5871
- Bharatha, S.**  
Note on a quasi-equilibrated motion of homogeneous, incompressible elastic materials 864  
Simultaneous extension, inflation, and shear of a cylindrical tube 1631
- Bhardwaj, R. K.**  
Performance of a flat-plate solar collector 722
- Bhargava, R. D.**  
Second-order elastic effects of a point-force at any point in an isotropic compressible infinite medium 1573  
Second-order elastic effects of a circular inclusion in an isotropic infinite compressible medium 4939  
Eccentric circular inclusion in a circular region 7606
- Bhat, W. V.**  
*See* Fox, J. A. 2685
- Bhatia, N. M.**  
Finite indentation of elastic-perfectly plastic membranes by a spherical indenter 1622  
Finite indentation of an elastic membrane by a spherical indenter 5916
- Bhatnager, P. L.**  
Plane Couette flow with suction or injection and heat transfer 1090  
Comparative study of some constitutive equations characterizing non-Newtonian fluids 4318  
Stability of equatorial disturbances in an idealized dipole magnetic field embedded in a nonuniform atmosphere 7435  
Proceedings of the summer seminar in fluid mechanics, May 1967 9617  
Heat transfer in plane Couette flow of a rarefied gas using Bhatnagar-Gross-Krook model 9698
- Bhatnagar, R. K.**  
Secondary flow in a viscoelastic fluid due to the rotational oscillations of a sphere with or without time dependent suction or injection 6219
- See also* Mathur, M. N. 8734
- Bhattacharya, J.**  
Stress relieving effect of neighboring notches 1579
- Bhattacharyya, A.**  
*See* Mallik, B. K. 350  
Mitra, P. 2467  
Chattopadhyay, A. 5178  
Advani, S. 7763
- Bhattacharyya, B. B.**  
Active synthesis using operational amplifiers 1477
- Bhattacharyya, P.**  
On the rotatory motion set up by certain impulsive shearing forces applied on the surface of a semi-infinite viscous incompressible fluid 399
- Biarez, J.**  
Limit equilibrium calculation of revolutionary shallow foundations 252  
Improvement of the mechanical properties of soils from zero to -180°C 6904  
Stresses in a circular enclosure filled with sand 8598
- Bickart, T. A.**  
Instability of periodically time-varying linear control systems 2229
- Bickerdike, J. S.**  
*See* Speight, L. R. 7529
- Biderman, V. L.**  
Investigation of stresses and strains of the rubber in the layer of a tire 110  
Stability of a rod made from neo-Hookean material 9284
- Bieler, B. H.**  
Photometric counting of seeds and stones in glass 2951
- Bielewicz, E.**  
Structural analysis of an umbrella roof structure 8701
- Bienawski, Z. T.**  
The effect of specimen size on compressive strength of coal 3293  
A photoelastic-model study of stress distribution and rock fracture around mining excavations 8651
- Bieniecki, H. S.**  
*See* Diboll, W. B., Jr. 4860
- Bierett, G.**  
Investigation of the strength of welded and riveted steel joints under working conditions: A proposal for systematic treatment of short and long-term fatigue strength data 6205
- Biermann, M.**  
Rheology 4310
- Biernatowski, K.**  
Shear resistance in the contact plane between a rigid foundation model and a cohesionless medium 7619
- Bignardi, L.**  
About the temperature distribution in a high speed diesel liner 1960
- Bihari, I.**  
Ultrasonic testing of inhomogeneities in heterogeneous media 8185



- Biihosunov, I. B.**  
Flow of a gas past a body at high subcritical velocity 1832
- Bilby, B. A.**  
Crack growth in notch fatigue 1730
- Bilek, J.**  
Solution of temperature fields of gas turbine parts by means of electrical analogy 797
- Bilida, G. V.**  
On the stress state of an annular ring stretched by two half-disks 4034
- Bilodeau, G. G.**  
A complex inversion theory for convolution transforms 3919
- Bindel, S.**  
Marine propeller cavitation: Comparison between model and full-scale 7187
- Binder, R. C.**  
*See* Safford, F. B.  
Hayes, C. D. 2113
- Bindon, J. P.**  
A preliminary assessment of the combined gas turbine and vapor turbine engine 1937
- Bineau, M.**  
Classical diffusion limit of one-dimensional hydromagnetic flow 1270
- Binek, B.**  
A generator for manufacture of monodispersed aerosols from the liquid phase 695
- Binkevich, E. V.**  
Calculation of a shell with a rib of variable section for a radial load 9377
- Biot, M. A.**  
Edge buckling of a laminated medium 162  
Generalized boundary condition for multiple scatter in acoustic reflection 9923
- Birchak, J. R.**  
*See* Smith, G. W. 5095
- Birchfield, G. E.**  
Horizontal transport in a rotating basin of parabolic depth profile 3486
- Bird, G. A.**  
The structure of normal shock waves in a binary gas mixture 413  
Compression of a rarefied plasma by converging magnetic mirrors 2866
- Bird, J. D.**  
Tuft-grid surveys at low speeds for delta wings 5408  
An investigation of the optimum design and flight of rockets 8383
- Birger, B. N.**  
The steady state in conducting systems 7207
- Birnbaum, M. R.**  
*See* Patel, S. A. 5882
- Birnstiel, C.**  
*See* Harstead, G. A. 5959
- Biron, A.**  
Nonlinear programming method for limit analysis of rotationally symmetric shells 3182
- Limit analysis of rotationally symmetric shells under central boss loadings by a numerical method 7701
- Bischoff, H.**  
Time-optimal control of sampled-data systems 8379
- Bishop, E. H.**  
Natural convective oscillatory flow in cylindrical annuli 8910  
*See also* Mack, L. R. 6400
- Bishop, W. M.**  
A prediction technique for ablative material performance under high-shear reentry conditions 7284
- Biskamp, D.**  
Influence of thermal radiation on electrons in a high temperature plasma 2868
- Bisnovatyi-Kogan, G. S.**  
The role of radiation in the formation of solar wind 3789  
Flow of an ideal gas in a spherically symmetrical gravitational field with allowance for radiant heat conduction and radiant pressure 5462
- Bisshopp, K. E.**  
Rodrigues' formula and the screw matrix 9173
- Biswas, R. N.**  
Contact problem of a pair of non-homogeneous semicircular regions with a source point 8412
- Bit, O.**  
Effect of some additives on the high pressure lubrication of hard steel 728
- Biter, C.**  
*See* Langer, G. 4771
- Bitetto, V.**  
*See* Aschieri, F. 6245
- Bjorklund, I. S.**  
Small scale tests for attrition resistance of solids in slurry systems 2128
- Black, H. F.**  
Vibration of a rotating asymmetric shaft supported in asymmetric bearings 1667  
Parametrically excited lateral vibrations of an asymmetric slender shaft in asymmetrically flexible bearings 8561
- Black, W. Z.**  
A study of directional radiation properties of specially prepared V-groove cavities 7251
- Blackburn, E. J.**  
A strain multiplier for fatigue sensors 9548
- Blacklock, J. R.**  
*See* Richard, R. M. 8676
- Blackman, F.**  
*See* Leaf, G. A. V. 1770
- Blackman, M.**  
Surface energy and evaporation rate of spherical particles of radii less than 500 Å 1949
- Blackshear, P. L., Jr.**  
*See* Murty, K. A. 5522
- Blackwell, J.**  
*See* Scott, D. 4795  
Scott, D. 4796
- Blackwell, J. A., Jr.**  
Preliminary study of effects of Reynolds number and boundary-layer transition location on shock-induced separation 2665  
A finite-step method for calculation of theoretical load distributions for arbitrary lifting-surface arrangements at subsonic speeds 9751
- Blagojevic, D.**  
*See* Stojanovic, R. 9307
- Blaha, R. J.**  
*See* Fox, H. W., Jr. 9859
- Blair, J. R.**  
Low frequency mechanical phase meter 830
- Blanc, J. P.**  
Automatic measurement of cement fineness 4733
- Blanchard, J. G.**  
*See* Jury, E. I. 3954
- Blank, F. G.**  
Sound field near a vibrating elastic plate 6507
- Blaquiere, A.**  
Some geometric aspects of optimal processes: Part 1, Problems with control constraints 2258
- Blaschke, R.**  
*See* Pfefferkorn, G. 2952
- Blazewicz, W.**  
The influence of local plastic deformation on the rate of growth of fatigue crack in aluminum alloy thin sheet material 272
- Blazhyyevska, O. V.**  
Effect of fluid on the free oscillations of an elastic circular plate 188
- Blazka, S.**  
*See* Hanousek, J. 1447
- Blazynski, T. Z.**  
Theoretical and experimental assessment of roll and plug forces and roll torque in the combined rotary piercing-elongating process 6081
- Blech, J. J.**  
Axisymmetric stress distribution in anisotropic cylinders of finite length 8416
- Bleich, H. H.**  
Step load moving with superseismic velocity on the surface of an elastic-plastic half-space 1702  
Moving step load on the surface of a half-space of granular material 4180
- Bleikhman, V. S.**  
Synthesis of reversible shift register counters 5782
- Blekhman, I. I.**  
Probability and proof in applied mathematics 766
- Blenner, D. R.**  
Broadband extensional damping materials 5101
- Blustein, J. L.**  
Some simple modes of wave propagation in an infinite piezoelectric plate 9470



- Blinova, E. N.**  
The hydrodynamic theory of long-term weather forecasts 8255
- Blitzer, L.**  
Equilibrium longitudes of geostationary satellites 4645
- Bloch, O.**  
Evolution of researches on methanol cells 4487
- Block, B.**  
PIFL: Computer program for design and analysis of pipe flow systems 5273
- Blockley, D. I.**  
Elastic behavior of joints between structural hollow sections 5873
- Blodgett, R. E.**  
Quasi-asymptotic stability of a class of nonlinear systems 6675
- Blokh, A. G.**  
Some general laws governing drop-size distribution on atomization of a liquid 5662
- Blokker, P. C.**  
Air Pollution: Part 3, Dispersion of flue gases from stacks 3494
- Blomberg, C.**  
Some fundamental aspects of many-body problems in statistical thermodynamics 1181
- Bloodwell, R. D.**  
*See* Cooley, D. A. 4815
- Bloor, M. I. G.**  
Effect of radiative heat loss on the subsonic region of the hypersonic shock layer 1115  
Effect of radiative heat transfer on the hypersonic shock layer 5345
- Blue, J. E.**  
Attenuation of sound in suspensions and gels 8193
- Bluestein, M.**  
Heat-transfer studies of blood-cooled heat exchangers 7278  
*See also* Drillis, R. 2983
- Blum, R. E.**  
Buckling of an equatorial segment of a spherical shell loaded by its own weight 3212
- Blumenauer, H.**  
Using the two-stage test for investigating the damage at vibrating stresses 6952
- Blunck, D.**  
Instability in pre-evaporators of steam generators 5503
- Bluschke, H.**  
Investigations on the influence of confusers and diffusers on the flow coefficient of standard Venturi nozzles 510
- Blythe, J. H.**  
*See* Agar, W. O. 6138
- Blythe, M.**  
*See* Flugge, W. 1634
- Boade, R. R.**  
Shock compression of foamed graphite 1706
- Boadway, J. D.**  
Instrument for measuring fluid pressures at a solid boundary 502
- Bobb, F. H.**  
Underwater power from aluminum 2016
- Bobco, R. P.**  
Directional emissivities from a two-dimensional, absorbing-scattering medium: The semi-infinite slab 554  
*See also* Edwards, R. H. 1981
- Bobrishev, P. N.**  
*See* Konovodchenko, V. I. 6211
- Bobritskii, G. M.**  
Bending of plates of variable stiffness on a nonhomogeneous elastic foundation 4072
- Bobrov, V. I.**  
Role and errors of the efficiency found by experimental means 1943
- Bobrovnikskii, Yu. I.**  
Vibrations of an infinite beam grid 9434
- Bobrovskii, V. A.**  
Instrument for determining wear due to friction 731
- Bocek, I. A.**  
Calculations of Ritz and Galerkin coefficients by the Monte-Carlo method 782
- Bock, W. J.**  
The avian mandible as a structural girder 3887
- Bockenhoff, H.-J.**  
*See* Schwieler, F. 3337
- Bodger, W. K.**  
Deceleration of an unbalanced rotor through a critical speed 3234
- Bodiakov, G. I.**  
The small parameter method for determining the motion of the viscous incompressible fluid in a support bearing 2169
- Bodner, S. E.**  
Turbulence theory with a time-varying Wiener-Hermite basis 9728
- Bodner, S. R.**  
Deformation of rate-sensitive structures under impulsive loading  
A note on the relation between strain rate dependent yielding and delayed yielding 9334
- Bodner, V. A.**  
Inertial-correlation system for determining the angular coordinates of an artificial Earth satellite 2080
- Bodunov, M. N.**  
Some results of an experimental study of local heat-transfer coefficients for turbine blades 6450
- Boenecke, H.**  
Flow tests with models in the development of suction offtakes for converter waste gases 5287
- Boerstoel, J. W.**  
A survey of symmetrical transonic potential flows around quasi-elliptical airfoil sections 3562
- Boetz, V.**  
Fine-punching of steel and non-ferrous metals 5179
- Boev, A. G.**  
Self-similar solutions of the non-stationary plane laminar MHD boundary layer equations 3766
- Boffi, V. C.**  
Thermoelectric theory of a plasma diode 3771
- Bogachuk Kozachuk, K. A.**  
The relationship between the efficacy of heat shielding with a flat surface and the flow conditions of the initial dynamic boundary layer in the main flow with air flowing through a tangential slit 7796  
*See also* Repukhov, V. M. 8060
- Bogacz, R.**  
Interaction between a moving set of nonlinear oscillations and a traveling wave 5076
- Bogaevskii, V. N.**  
On the general integrals of the equations of motion of a solid body through a fluid 3490
- Boganik, G. N.**  
On the determination of the order of a parabolic regression equation 7507
- Bogardi, J.**  
Determination of the limit values of bed load movement  
Incipient sediment motion in terms of the critical mean velocity 7057
- Bogatyrev, L. L.**  
*See* Arzamastsev, D. A. 3741
- Bogdan, R. C.**  
Analytical study of five-bar mechanisms of classes III and V through the method of complex harmonic analysis 4306
- Bogdan, V.**  
The expressions of the stresses produced in axisymmetric rotating disks loaded by forces varying along their axes 3233
- Bogdanov, O. I.**  
Simulation of the pressure distribution law in a fluid film 1478
- Bogdanov, S. V.**  
Application of surface elastic vibrations for the measurement of some characteristics of semiconductor films 4155
- Bogdanova, V. V.**  
Parametric method of calculating a three-dimensional boundary layer 8799
- Bogdanovich, M. M.**  
Effect of acceleration on the accuracy of the readings of a gyroscope 77
- Bogelsack, G.**  
Continuous coupler mechanisms for three relative coordinations of positions 3427
- Boger, R. C.**  
The nonanalyticity at the surface of a body in an OHD or MHD stream  
Stagnation-point flow in magneto-hydrodynamics 9864
- Bogner, F. K.**  
*See* Schmit, L. A. 147

- Bogolepov, V. A.**  
Graphical method for plotting the stress dependence of the damping decrement 8554
- Bogumil, S.**  
See Ciechanowicz, W. 2246
- Boguslavskii, I. A.**  
On the equations of stochastic control 849
- Boguslavskii, Yu. Ya.**  
Diffusion of a gas into a cavitation void 1804
- Bogusz, W.**  
Kinetic synthesis of general mechanical systems: Part I 196
- Bogy, D. B.**  
The effect of couple-stresses on singularities due to discontinuous loadings 96
- Bohler, P.**  
On the complete determination of dynamic states of stress at the surface of nontransparent models or prototypes 3361
- Bohm, F.**  
Oblique impact of two vehicles with air-filled tires 7577
- Bohm, J.**  
The dynamics of particles in the Stokesian and non-Stokesian region 690
- Bohme, F.**  
Relationship between steel consumption and design method in strength and endurance demonstrations for R.C. railway bridges 1036
- Bohme, G.**  
Strength of the frozen shock in steady one-dimensional flow of relaxing gases 7109
- Bohn, E. V.**  
See Sutherland, J. W. 3083
- Bohn, J. C.**  
See Winokur, R. S. 8190
- Boim, A. A.**  
Axisymmetric flexure of a plate, the material of which does not obey Hooke's law 5926
- Boitsova, E. A.**  
See Rzhiznikov, Yu. V. 4886
- Boivin, M.**  
See Bahuaud, J. 7590
- Bokhari, S. M. H.**  
Drawdowns due to pumping from strip aquifers 3835
- Bokov, V. V.**  
Numerical solution of the fundamental mixed problem of the two-dimensional theory of elasticity 1569  
Numerical method of solving the mixed problem of the two-dimensional theory of elasticity 1570
- Boldman, D. R.**  
See Graham, R. W. 9827
- Bole, J. B.**  
Response of gravity water waves to wind excitation 7167
- Bolef, D. I.**  
See Melcher, R. L. 2926
- Boley, B. A.**  
Propagation of discontinuities in coupled thermoelastic problems 6531
- Bollheimer, L.**  
An application of the PLK method to conformal mapping and thin airfoil theory 7488  
A contribution to the theory of the ducted propeller 8028
- Bollinger, J. G.**  
See Bonesho, J. A. 1682
- Bolotin, V. V.**  
Random thermoelastic stresses in shells 7394  
Stresses in a layered medium under a concentrated load 9311
- Bolotov, A. A.**  
Research into the flow of mixtures of steam and liquids in vertical pipes 5504
- Bolotovskii, I. A.**  
The geometry of point-thinned gears cut by a rack cutter 1774
- Boltz, F. W.**  
Minimum thrust for correcting Keplerian orbits with application to interplanetary guidance 2893
- Bom, N.**  
Effect of rain on underwater noise level 8195
- Bonavito, N. L.**  
An accuracy and speed comparison of the Vinti and Brouwer orbit prediction methods 9036  
An analysis of satellite positional uncertainty by statistical mechanics 9043
- Bond, C. E.**  
Stability and slanting of the electric arc in a thermionic rail accelerator 2853
- Bond, D.**  
See Kay, E. A. 4240
- Bond, V. R.**  
Matched-conic solutions to round-trip interplanetary trajectory problems that insure state-vector continuity at all boundaries 6500
- Bondar, N. G.**  
Stability of nonlinearly elastic rods of variable section 9389
- Bondarenko, B. A.**  
Application of the method of least squares to the solution of three-dimensional problems of the theory of elasticity 92
- Bondarenko, V. I.**  
Application of linear programming to extremal problems of the control theory 7559
- Bones, J. A.**  
See Chester, W. 2714
- Bonesho, J. A.**  
How to design a self-optimizing vibration damper 1682
- Boness, R. J.**  
Hydrodynamic lubrication of lightly loaded finite cylinders 8285
- Bonilla, C. F.**  
See Larrain, J. 9804
- Bonneau, L.**  
Comments on arch dams 4277
- Bonnechere, F.**  
Determination of the regional stress field from 'doorstopper' measurements 3297
- Bonnefille, R.**  
A theoretical and experimental study of longshore sediment drift 2944  
Design of a rotating model of a coastal sea area: Its application to the Chausey Islands tidal power plant 6562
- Bonnell, J. M.**  
Combustion stability in an annular gas combustor 4568
- Bonsch, G.**  
Voith turbo coupling for marine propulsion 5709
- Boothroyd, J.**  
The symmetric matrix eigenproblem: Jacobi's method revisited 6636
- Borcherdt, R. D.**  
A method for estimating the uncertainty of seismic velocities measured by refraction techniques 7419
- Bordyug, V. D.**  
Calculation of thin inelastic shells 9359
- Borel, L.**  
Dimensionless characteristic values for turbomachines 5441
- Borg, S. F.**  
Thin plates with large deflections including the effect of the third-order elastic constants 897
- Borgeaud, G.**  
Static and derailing stability of cog railways 9596
- Borgeaud, P.**  
See Briner, M. J. 3432
- Borges, J. F.**  
Dynamic loads: In particular wind and earthquake loads 328
- Borisenko, V. I.**  
Semi-empirical methods of calculating the stability of a cylindrical shell in the case of longitudinal impact 4114
- Borishanskii, V. M.**  
Effect of viscosity of liquid phase on loss of hydrodynamic stability in nucleate bulk boiling 1990
- Borisov, B. R.**  
Determination of critical speeds of connecting rods 204
- Borisov, D. C.**  
On the self-excitation of the rotor of a synchronous motor 214
- Borisov, D. S.**  
Periodic states of motion of systems with nonlinear elastic characteristics 170
- Borisov, G. A.**  
Reasons for the discontinuity of the characteristics of an axial compressor stage with large relative diameter of the bushing 490
- Borisov, N. F.**  
See Dyukalov, A. N. 9878

- Borja, M.**  
On the numerical treatment of the lifting-surface problem 8824
- Borjan, J.**  
An expeditious determination of mathematical-statistical characteristics using a graphical method 2212  
Evaluation of nondestructive concrete testing using mathematical-statistical methods 2519
- Borkauskas, A.**  
On the duality in limit analysis and design of plates 7680
- Borman, G. L.**  
*See* Goluba, R. W. 7196
- Borner, H.**  
On the generation of sound in turbulent flow 4662  
The grinding behavior of soft-burned lime 7824
- Bornhorst, W. J.**  
Bubble-growth calculation without neglect of interfacial discontinuities 6414
- Borodachev, N. M.**  
On the impression of a stamp into the end of semi-infinite elastic cylinder 4032
- Borodin, V. A.**  
On the computation of zeros of entire functions by means of series in problems of mechanics 5776
- Borodin, V. B.**  
The convective motion of a highly viscous fluid in a vertical cylinder 8071
- Boromisza, T.**  
Investigation of soil elasticity for road structures 4201
- Boros, A.**  
A generalized representation of one-parameter space curves: Nyquist's diagrams 3035
- Borovskii, B. I.**  
Factors summarizing the head and efficiency parameters of centrifugal pumps 487
- Bors, C. I.**  
Plastic plane deformations of orthotropic bodies 1604  
Variational theorems in the plastic theory of orthotropic bodies: The case of plane deformations 4972
- Borshchevskii, Yu. T.**  
Factors influencing the suspension of solid particles in a sediment-bearing flow 9096
- Borth, D. M.**  
Analysis of cyclic reactor behavior by the equivalent gain technique 5800
- Bortz, S. A.**  
*See* Acquaviva, S. J. 9549
- Borzydyka, A. M.**  
Development of test procedures for creep, long-term strength, and stress relaxation tests on metals 2517
- Bosansky, J.**  
The effect of a dislocation network on plastic strain in Fe-Si 9335
- Bosch, J.**  
*See* Aurand, K. 4735
- Bose, D. K.**  
*See* Davies, J. D. 6127
- Bose, N. K.**  
A quadratic form representation of polynomials of several variables and its applications 7547
- Bose, P.**  
*See* Weber, J. 4665
- Bose, R. K.**  
Note on forced vibration of a thin nonhomogeneous circular plate with a central hole 4131  
Stresses in a semi-infinite sandy soil due to normal impulsive pressure 5151
- Bose, S. C.**  
On the stresses due to a concentrated couple at the center of an elastic elliptic plate with fixed edge 2360
- Bose, S. K.**  
The scattering of Rayleigh waves by a high impedance small circular obstacle on the surface 8564
- Bose, T. K.**  
*See* Kalyanam, M. 4614
- Bosnak, J. S.**  
*See* Folse, R. F. 9652
- Bosnjakovic, F.**  
Thermodynamic limitations of heat transfer in a tube 6394
- Bossel, H. H.**  
Stagnation criterion for vortex flows 3487
- Bossler, F. C.**  
Torsion apparatus for measuring shear properties of adhesive bonded joints 6143
- Bostick, W. H.**  
*See* Small, R. L. 1310  
*See* Valsamakis, E. A. 3784
- Bosznay, A.**  
Analysis of continuous beams by the aid of a method of the theory of oscillation 2215
- Bothell, L. E.**  
Development of a method which may be used for predicting the inelastic response of cylinders subjected to strong blast loads 6897
- Botkin, J. L.**  
*See* Kutzscher, E. W. 6155
- Botsford, J. H.**  
Simple method for identifying acceptable noise exposures 4668
- Bott, J. F.**  
Massive blowing experiments 448
- Bott, T. R.**  
Scraped surface heat transfer with KnitMesh scraper 3675
- Botte, R.**  
Study of the combined effects of temperature and high rates of stressing on the behavior of Armco iron 3267
- Bottema, O.**  
Free oscillations of an infinite string 4123
- Botterill, J. S. M.**  
Progress in fluidization 5664
- Bouc, R.**  
Remark on a result of Urabe 2997
- Bouchillon, C. W.**  
The prediction of satisfactory thermal environment for chicken production 5735
- Bougard, J.**  
*See* Point, J. J. 1940
- Boulot, F.**  
A numerical determination of salt wedge movements 8742
- Boure, J.**  
Self-sustained oscillations in heated two-phase flows 4554
- Bourgeois, P.**  
The ratio of terminal velocity to minimum fluidizing velocity for spherical particles 8206
- Bourne, D. E.**  
Laminar and turbulent flow in annuli of unit eccentricity 6227
- Bourodimos, E. L.**  
Wave transformation in an open channel transition 3450  
Characteristics of an open tube wave attenuation system 8859
- Bourot, J.-M.**  
On the uniform movement of a sphere along the axis of a liquid-filled cylinder in Stokes regime: Different diameter ratios 7948  
On the calculation of the irrotational hydrodynamic field around a sphere moving along the axis of a cylindrical tube, containing incompressible fluid 8754  
On the experimental study of the hydrodynamic field of a revolutionary ellipsoid moving in the axis of a cylindrical tube, in a Stokes regimen 8755
- Boutry, C.**  
*See* Dufrasne, P. 3300
- Bouvard, M.**  
The measurement of turbulence in water by the hot wire method: Part 2, Measurement procedure and results 2686  
Study of the turbulence in confined media and diffusion of solid particles: Test stand of the Laboratoire de Mecanique des Fluides, Grenoble 7149
- Bouwkamp, J. G.**  
*See* Rea, D. 4151
- Bouwman, H. B.**  
A comparison of heat transmission of a number of heat transfer oils, water and other well-known heat transfer media 4512
- Bow, M. R.**  
*See* James, J. F. P. 6973
- Bowden, F. P.**  
A discussion on deformation of solids by the impact of liquids, and its relation to rain damage in aircraft and missiles, to blade erosion in steam turbines, and to cavitation erosion 2439  
Initiation of explosion in  $\text{AgN}_3$  and  $\beta\text{-PbN}_6$  single crystals by a collapsing bubble 5628  
*See also* Gane, N. 297

- Bowden, M.**  
Effect of a radial barrier on the convective flow in a rotating fluid annulus 7239
- Bowen, F. E.**  
See Moseley, W. C., Jr. 9040
- Bowen, J. R.**  
See Steffes, F. J. 2907
- Bowen, R. M.**  
Toward a thermodynamics and mechanics of mixtures 1951
- Bower, J. E.**  
Design of beams with web openings 3154  
Ultimate strength of beams with rectangular holes 5219
- Bowers, E.**  
Fluid equations for a collisionless plasma, including finite ion Larmor radius and finite  $\beta$  effects 8134
- Bowlus, D. A.**  
Incompressible turbulent flow in the inlet region of a pipe 4423  
See also Hayday, A. A. 4399
- Bowman, H. A.**  
Procedure for high precision density determinations by hydrostatic weighing 309
- Bowman, J. E.**  
Boat-tailed afterbodies at  $M_\infty = 2$  with gas ejection 6321  
See also Clayden, W. A. 6320
- Bowyer, J. M., Jr.**  
See Berns, R. R. 9686
- Boyadzhiev, L.**  
On liquid-liquid mass transfer inside drops in a turbulent flow field 8104
- Boyarinov, V. S.**  
Calculation of the vibration of a shaft rotating in ball bearings 5999
- Boyd, D. E.**  
Analysis of open noncircular cylindrical shells 8473  
See also Lindbergh, C. 8481
- Boyd, J.**  
See O'Connor, J. J. 9991
- Boyle, R. J.**  
Thermal analysis of shadow shields and structural members in a vacuum 1224  
See also Kasper, H. J. 1063
- Boynton, F. P.**  
Spectral emissivity of carbon particle clouds in rocket exhausts 1980  
See also Rayfield, G. T. 3610
- Brable, J.**  
Intensification of heat transfer by the effect of a magnetic field upon the boundary layer 537
- Brace, W. F.**  
Permeability of granite under high pressure 5671  
See also Byerlee, J. D. 5166  
Greenberg, R. J. 8603
- Brach, R. M.**  
Minimum dynamic response for a class of simply supported beam shapes 4125
- On the extremal fundamental frequencies of vibrating beams 6816  
Optimum design of beams for sudden loading 6983
- Brach, S.**  
Calculation of the bearing forces and journal deflections of crankshafts 1621  
Results of the investigations into base plates with transverse stiffeners of high-capacity diesel engines 4239
- Braconnot, P.**  
See Boulot, F. 8742
- Bradeanu, P.**  
Application of the Mayer-Bolz problem to the optimization of the motion of a rocket 9764
- Bradley, D.**  
Double spherical electrostatic probe continuum theory and electron temperature measurement 634  
Measurement of high gas temperatures with fine wire thermocouples 4496
- Bradley, D. L.**  
See Urlick, R. J. 9065
- Bradley, J. W.**  
Density determination from axisymmetric interferograms 4460
- Bradley, P. G.**  
Correction of errors in indicator diagrams: Passage effects 1171
- Bradshaw, P.**  
Thermal methods of flow measurement 2738  
Unexplained scale effects in ejector shroud "howling" 4660  
The response of a constant-pressure turbulent boundary layer to the sudden application of an adverse pressure gradient 7131  
A note on reverse transition 7137  
The analogy between streamline curvature and buoyancy in turbulent shear flow 8007
- Brady, B. T.**  
The nonlinear mechanical behavior of brittle rock: Part 1, Stress-strain behavior during Regions I and II 9492  
The nonlinear mechanical behavior of brittle rock: Part 2, Stress-strain behavior during Regions III and IV 9493  
A statistical theory of brittle fracture for rock materials: Part 1, Brittle failure under homogeneous axisymmetric states of stress 9495  
A statistical theory of brittle fracture for rock materials: Part 2, Brittle failure under homogeneous triaxial states of stress 9496
- Bragg, G. M.**  
The turbulent boundary layer in a corner 8802
- Bragg, L. R.**  
The radial heat equation and Laplace transforms 2199  
An operator calculus for related partial differential equations 3006
- Brailovskaya, I. Yu.**  
Difference method for the numerical solution of two-dimensional unsteady Navier-Stokes equations for a compressible gas 428
- Viscous gas flow past a wall with a sharp corner 3500  
Flow of a viscous gas near a wall with a corner 4417
- Brajannisz, T.**  
Approximate analysis for a shell with the form of a portion of a hyperbolic surface of revolution 5013
- Brakhage, H.**  
See Borja, M. 8824
- Bramble, J. H.**  
Bounds for the first derivatives of Green's function 7490
- Branca, F. P.**  
See Belisario, G. 3313
- Branch, D. R. C.**  
Design of vertical cantilevered walls 4278
- Brandmaier, H. E.**  
Electrofluid-dynamic generator performance limits 3796  
See also Dworschak, J. R. 3792
- Brandt, G.**  
See Young, A. C. 4805
- Brandt, G. B.**  
Hologram projection on curved image planes 7853
- Brandt, J. F.**  
See McClelland, K. D. 9919
- Branson, D. E.**  
Design procedures for computing deflections 7885
- Braslau, D.**  
Three-dimensional fields due to a Volterra dislocation imbedded in a layered half-space: Analytical representation of a seismic mechanism 8401
- Bratakos, D. S.**  
See Rogers, P. 3196
- Bratanow, T.**  
Bibliography of the air cushion vehicle technology with a guide for design and analytic engineers 4628
- Bratos, M.**  
Application of the Lax scheme to the computation of transonic flow 9662
- Bratukhin, Iu. K.**  
Thermocapillary convection in a fluid filling a half-space 3678
- Bratuta, E. G.**  
The effect of Mach and Reynolds numbers on superheated steam flowrate coefficients 3598
- Braun, E.**  
Transport coefficients in a plasma: Part 1, Pure gas; Part 2, Binary mixture 2859
- Braun, J.**  
A supercritical thermodynamic power cycle with MHD generator 9887
- Bray, K. N. C.**  
Conditions for significant gas-dynamically induced vibration-recombination coupling 3528
- Brazier-Smith, P. R.**  
Dynamics of the disintegration of a drop by electrical forces 4721
- Brcic, V.**  
See Hovanesian, J. D. 3357



- Brdlik, P. M.**  
Effect of discrete flow distribution on heat transfer at a vertical surface in natural convection 3680  
Experimental investigation of heat and mass transfer during condensation of water vapor from humid air on a vertical surface under natural convection conditions 3709  
Porous flow at a vertical surface in free convection: Laminar boundary layer 7288
- Breaux, H. J.**  
A numerical method for a Stefan problem 3703
- Breazeale, M. A.**  
See Van Buren, A. L. 9929  
Van Buren, A. L. 9930
- Brebbia, C. A.**  
Umbrella-shaped hyperbolic paraboloid shells 3174
- Brebenel, D.**  
See Radu, T. 6854
- Brechling, J.**  
Method for calculating compressible subsonic flow through cascades 479
- Breckenridge, J. R.**  
See Newman, R. W. 4807
- Breen, J. E.**  
Fabrication and tests of structural models 3355
- Brehme, H.**  
Fields of application of conventional and supercavitating propellers 1923
- Brehmer, E.**  
The unit coordinator: A further step towards rational power station operation 3068
- Breiland, J. G.**  
Comparison of the vertical distribution of thermal stability in the lower stratosphere with the vertical distribution of atmospheric ozone 7436
- Breitenburger, G.**  
See Rodloff, G. 3272
- Breitschuh, K.**  
Calculation of triangular reinforced concrete plates: Part 1 6171  
Calculation of triangular reinforced concrete plates: Part 2 6172
- Brekhovskikh, L. M.**  
Waveguide effects in solid layered media with continuously varying parameters 5115
- Brendel, K.**  
See Meyer, E. 4677
- Brennan, R. D.**  
The system/360 Continuous System Modeling Program 9225
- Brenner, H.**  
See Cox, R. G. 687  
Feldman, G. A. 1082  
Sonshine, R. F. 2607
- Brepta, R.**  
Wave propagation in laminated elastic materials 235
- Brereton, R. C.**  
Accuracy of the numerically generated integral manifolds 1335
- Bresler, B.**  
Behavior of reinforced concrete under repeated load 4262
- Bretherton, F. P.**  
On the mixing of angular momentum in a stirred rotating fluid 4345
- Bretschneider, H.**  
Some similarity points of the bed load formula of Meyer-Peter and Muller 4338
- Brettell, H. J.**  
Theory for the ultimate strength design of hollow circular reinforced concrete sections 5228
- Brettman, K. F.**  
See Emery, A. F. 2653  
Emery, A. F. 3665
- Breuneval, J.**  
On the deformation energy of elastic shells 6769
- Brevik, I.**  
Relativistic thermodynamics 4480
- Brewer, E. B.**  
Experimental investigation of base flow field at high altitude for a four-engine clustered nozzle configuration 7963
- Brewer, W. D.**  
Effect of the chemical state of pyrolysis gases on heat-shield mass 2814
- Brezinskii, V. G.**  
See Namitokov, K. K. 8283
- Bridgewater, J.**  
See Lock, R. C. 5421
- Briggs, C. W.**  
See Wallace, J. F. 2483
- Briggs, J. E.**  
Water drainage from sand in developing aquifer storage 9107
- Briggs, R. A.**  
Temperature-time history of right circular cylinder in hypersonic flow 6402  
See also Korkegi, R. H. 742
- Briggs, R. J.**  
Guided waves on cold nonuniform plasma columns 2036
- Brighton, J. A.**  
See Bowlus, D. A. 4423
- Brigman, G. H.**  
Possible tests of general relativity conducted with a Jupiter probe 9282
- Briller, R.**  
Gas solids suspension convective heat transfer at a Reynolds number of 130,000 9823
- Brillhart, L. V.**  
A dynamic photoelastic investigation of stress-wave propagation in cones 1708
- Briner, M. J.**  
Analysis of diesel engine structures with special reference to traction application 3432
- Brink, H. M.**  
See Severy, D. M. 3353
- Brinkmann, A.**  
Analysis of stationary plane boundary layer flow of a non-Newtonian fluid which follows the Ostwald-de Waele law of friction 8807
- Brinson, H. F.**  
Mechanical and optical viscoelastic characterization of Hysol 4290 5208
- Briscoe, M. G.**  
Experimental and theoretical study of the stability of plane shock waves reflected normally from perturbed flat walls 1839  
See also Kovitz, A. A. 9672
- Brittain, T. M.**  
See Chang, K. T. 995
- Britton, W. G. B.**  
Stress pulse dispersion in curved mechanical waveguides 1696
- Britz, H.**  
See Weber, J. 4665
- Broadbent, E. G.**  
Magnetohydrodynamic wave propagation from a localized source including Hall effect 3759
- Broadway, J. A.**  
A mathematical model for deposition from turbulent flows 1377
- Broberg, K. B.**  
Critical review of some theories in fracture mechanics 6934
- Brocard, J.**  
Fundamental properties of resin concrete 880
- Brochet, C.**  
See Guerraud, C. 7362
- Brock, J. E.**  
Optimal matrices describing linear systems 2993  
An interesting case of buckling of a simple structure 8509  
See also Pellett, D. A. 2391
- Brockley, C. A.**  
Friction-induced vibration 6860
- Brockman, H. E.**  
Development of high intensity thermal protective fabric 1206
- Brodskii, V. B.**  
Distribution of the plasma density during ionization of a gas in a waveguide by a beam of fast electrons 1311
- Broek, D.**  
Some considerations on slow crack growth 6941
- Brogan, W. L.**  
Theory and application of optimal control for distributed parameter systems: Part 1, Theory 2267  
Theory and application of optimal control for distributed parameter systems: Part 2, Computational results 2268  
Dynamic programming and a distributed parameter maximum principle 5811
- Bromley, K.**  
See Monahan, M. A. 6024



- Bromley, L. A.**  
Promotion of drop-by-drop condensation of steam from seawater on a vertical copper tube 1242
- Broms, B.**  
Crack spacings and crack widths in reinforced concrete members 5186
- Broniarski, C.**  
Stability of nonlinear vibration of an elastic pendulum with a moving point of suspension 9408
- Bronin, F. A.**  
*See* Agranat, B. A. 4692
- Bronoel, G.**  
Present status of basic research on fuel cells 518  
State of the art of fundamental research of fuel cells 5457
- Bronskii, A. P.**  
Equations of three-dimensional deformation of linear viscoelastic media 105
- Brook, N.**  
The penetration of rock by high-speed water jets 9499
- Brookes, B. E.**  
Limit cycles in time-delay relay systems 7538
- Brookes, C. A.**  
Tensile apparatus for measurements at very high temperatures 686  
Brittle fracture in iridium single crystals 1003
- Brooks, J. D.**  
Investigation of a plasma accelerator with magnetic field arranged to produce a divergent-nozzle effect 8147
- Brooks, R. G.**  
Using moiré interferometry in non-contact temperature measurement 3367
- Brooks, R. H.**  
*See* Laliberte, G. E. 4739
- Brooksbank, D.**  
Thermal expansion of some inclusions found in steels and relation to tessellated stresses 6094
- Brosilow, C. B.**  
Optimal control of a distillation column 64
- Brossard, J.**  
Propagation and vibratory phenomena of cylindrical and expanding detonation waves in gases 7296
- Brotchie, J. F.**  
Systematic design using mathematical programming 5787
- Brothers, A. J.**  
*See* Mowbray, D. F. 6110
- Brotton, D. M.**  
*See* Allman, D. J. 926
- Brouillette, E. C.**  
Magneto-fluid-mechanic channel flow: Part I, Experiment 4583  
*See also* Lykoudis, P. S. 8990
- Browman, M. Ya.**  
Computation of plane plastic deformation for static indeterminate problems 2333
- Brown, B. F.**  
Coping with the problem of the stress-corrosion cracking of structural alloys in seawater 9527
- Brown, B. J.**  
Boundary effects of uniform size roughness elements in two-dimensional flow in open channels 3457
- Brown, C. B.**  
Factors affecting the damping in a lap joint 208  
Flexible culverts under high fills 1719  
A study of bond between steel and restrained expanding concrete 6988  
*See also* Taylor, R. L. 702
- Brown, C. J.**  
Time-optimal control of a moving coil linear actuator 5824
- Brown, E. H.**  
*See* Visvalingam, A. C. 293
- Brown, G. L.**  
*See* Spence, D. A. 6389
- Brown, G. M.**  
Some properties of the day-to-day variability of  $S_q(H)$  8249
- Brown, J. E.**  
Finite element solution to dynamic stability of bars 163
- Brown, J. R.**  
Reverberation under arctic sea-ice 4688
- Brown, K. C.**  
The measurement of skin friction in turbulent boundary layers with adverse pressure gradients 7130
- Brown, K. R., Jr.**  
Rapid computation of optimal trajectories 3989  
Real-time optimal guidance 6689
- Brown, P. S.**  
*See* Arnason, G. 5393
- Brown, R. A. S.**  
The pipeline flow of paste slugs: Part 2, Pressure gradients and velocities of trains of slugs 1791
- Brown, R. J.**  
Water-column separation at two pumping plants 8737
- Brown, R. K.**  
On the torsion of a curvilinearly aeolotropic cylinder 4031  
Perturbation problems in finite elasticity: Perturbation of the aeolotropy 9283
- Brown, R. S.**  
Surface reaction effects on the acoustic response of composite solid propellants 2828  
Dynamic ballistics of combustion termination by fluid injection 3747
- Brown, S. N.**  
An asymptotic expansion for the eigenvalues arising in perturbations about the Blasius solution 4847  
Slow viscous flow of a stratified fluid past a finite flat plate 7957
- Brown, S. P.**  
Cholesteric crystals for nondestructive testing 4251
- Brown, W. F., Jr.**  
Magnetoelastic interactions 7589  
*See also* Bubsey, R. T. 9517
- Brownscombe, J. L.**  
Freezing and shattering of water droplets in free fall 8210
- Bruch, J. C., Jr.**  
Transient expansion of real hydrogen from a storage reservoir 3532
- Bruckheimer, M.**  
Mathematics for technology: A new approach 1
- Bruckner, F.**  
*See* Siemonsen, H. P. 3273
- Bruges, E. A.**  
Ordinary water substance: 1967 4491
- Bruin, S.**  
Transient temperature distributions in cylindrical shells 5477  
Calculation of temperature and moisture distributions during contact drying of a sheet of moist material 8094
- Brune, J. N.**  
Excitation of mantle Rayleigh waves of period 100 seconds as a function of magnitude 2142
- Brunell, R. D.**  
*See* Chow, C.-Y. 1292
- Brunelle, E. J.**  
A note concerning a class of non-classical forced-motion problems 7575
- Bruns, H.**  
An instrument for measuring the effect of mechanical vibration on the human being 4810
- Brusdeylins, G.**  
Investigation of the momentum exchange between air and solid particles in a round, horizontal free jet 9093
- Brush, D. O.**  
Imperfection sensitivity of stringer stiffened cylinders 5064
- Brusilovskii, K. A.**  
*See* Bleikhman, V. S. 5782
- Brutsaert, W.**  
Mass transfer aspects of pan evaporation 2155
- Bruyere, G.**  
Study of pneumatic transmission lines 829
- Bruzer, Z.**  
Comparative tests of vehicle fans 2733
- Bryan, C. A.**  
Approximate solutions to nonlinear integral equations 777
- Bryan, E. R.**  
Shear flexibility and strength of corrugated decks 7003
- Bryan, M. E.**  
*See* McRobert, H. 1448
- Bryngdahl, O.**  
Shearing interferometry by wave-front reconstruction 2510
- Bryson, A. E., Jr.**  
*See* Speyer, J. L. 7557

- Bryzgalov, G. A.**  
See Balyberdin, V. V. 1315
- Brzustowski, T. A.**  
Heat transfer from a propane-oxygen-aluminum flame 6442  
Some electrical effects in an aluminum-propane-oxygen flame jet at atmospheric pressure 8955
- Bublik, B. M.**  
Application of the method of summed representations to problems of the dynamic stability of plates 6873
- Bubsey, R. T.**  
Crack toughness characteristics of several alloys for use in heavy sections of high speed aircraft 9517
- Buchan, A. L.**  
The introduction of time-varying gearing terms into the linearized equations of motion describing the dynamic characteristics of machinery 73
- Buchelnikova, N. S.**  
Excitation of ionic sound waves in potassium and cesium plasma 2111  
Instability of a highly inhomogeneous plasma 9002
- Buchholz, H.**  
See Tauscher, H. 3340
- Buchman, S.**  
The identification of zones with increased porosity by the seismic reflection method 7425
- Buchwald, V. T.**  
Some problems of thin circular cylindrical shells: Part 2, The infinite crack 5939
- Buck, K. E.**  
See Argyris, J. H. 5919
- Buck, O.**  
See Thompson, D. O. 1709
- Buckalo, A. F.**  
Explicit conditions for controllability of linear systems with time lag 5796
- Buckle, A. K.**  
Air cushion vehicles 4626
- Buckley, D. H.**  
Influence of surface films on friction and deformation of single-crystal and polycrystalline gold 2162  
The effect of orientation and the presence of surface active materials on the friction, deformation and wear of aluminum 4773
- Bucko, S.**  
Stability analysis of axially compressed cylindrical shells by the method of generalized power series 2394
- Bucy, R. S.**  
New results in asymptotic control theory 1526
- Budagyan, I. F.**  
Use of asymptotic methods of the theory of nonlinear vibrations in the problem of wave propagation in an inhomogeneous medium 973  
Application of asymptotic methods of the theory of nonlinear vibrations to wave propagation problems 2427
- Budakov, V. P.**  
Existence of an interval of stability according to the first approximation 1492
- Budakov, G. A.**  
Use of polarized ultrasonic oscillations for the determination of the internal elastic anisotropy of materials 1593
- Budiansky, B.**  
Notes on nonlinear shell theory 5028  
Initial postbuckling behavior of cylindrical shells under external pressure 9399
- Budnikova, N. A.**  
See Sharaf, S. G. 3806
- Budnyanskii, I. M.**  
Drifts of a dynamically unbalanced gyroscope set on an oscillating base 78
- Buelow, F. H.**  
See Hassan, S. A. 4534
- Buettner, D. R.**  
Creep recovery of plain concrete 2321
- Buevich, Yu. A.**  
Distortion of energy spectrum of decaying isotropic turbulence due to suspended particles 2677  
See also Askerov, B. A. 3441
- Buffham, B. A.**  
Laminar flow in open circular channels and symmetrical lenticular tubes 2606
- Bugliarello, G.**  
Random walk simulation of convective diffusion from instantaneous point sources in a laminar field 387
- Bugnolo, D. S.**  
On the effects of stochastic boundary perturbations on acoustic wave propagations: The theory 8836
- Buhl, D.**  
Reradiation and thermal emission from illuminated craters on the lunar surface 4647
- Buhler, H.**  
Simple method to determine the internal stresses in wire 6139
- Buhr, H. O.**  
Temperature profiles in liquid metals and the effect of superimposed free convection in turbulent flow 3685
- Bui, H. D.**  
Displacement field of an elastic, homogeneous, isotropic half-plane 5851
- Buil, J. A.**  
Unit graphs for nonuniform rainfall distribution 2143
- Buiten, J.**  
Marine diesel engine exhaust noise: Part 2, Scale models of exhaust systems 8112
- Bujak, A.**  
See Drescher, A. 2448
- Bukhman, M. A.**  
See Ustimenko, B. P. 9659
- Bukhovtsev, B. B.**  
Calculation of flow past rectangular wing of low aspect ratio according to nonstationary theory 8816
- Bulakh, B. M.**  
On uniformly exact equations of the plane laminar boundary layer for a body with a sharp local change in the curvature of its profile 4400
- Bull, C. D.**  
An investigation of the reflected shock interaction process in a shock tube 3520
- Bullock, T. E.**  
A second-order feedback method for optimal control computations 5821
- Bulmer, M. G.**  
Principles of statistics, 2nd edition 19
- Bulyandra, A. F.**  
See Dushchenko, V. P. 3692
- Bulygin, A. N.**  
Plane strain in the asymmetric theory of elasticity 4023
- Bunimovich, A. I.**  
Aerodynamic characteristics of plane compressor cascades at high subsonic velocities 481  
Generalized results of the investigation of plane compressor cascades in the case of subsonic velocities 1922
- Bunt, E. A.**  
Design and operation of plasma arc air heater for reentry simulation 633
- Bur, T. R.**  
Velocity errors in cemented specimens 9494
- Burak, Ya. I.**  
Plastic equilibrium of an infinite cylinder during induction heating 7397
- Burcher, E. E.**  
See Keafer, L. S., Jr. 4469
- Burchill, W. E.**  
Influence of axial heat diffusion in liquid metal-cooled ducts with specified heat flux 4528
- Burchuladze, T. V.**  
Approximate solution of boundary value problems for a certain class of elliptic systems 6616
- Burd, A. N.**  
The measurement of sound insulation in the presence of flanking paths 2925
- Burdekin, M.**  
See Bell, R. 4149
- Burdet, C. A.**  
Theory of Kepler motion: The general perturbed two body problem 2071
- Burdick, G. A.**  
See Hickman, T. G. 2802
- Burg, K.**  
Transonic flow around a profile in a blocked channel 9663
- Burgess, A. J.**  
The performance of fans in hovercraft: A method of reducing experimental results 6484

- Burgess, H. J.  
Ridged portals made easy 9579
- Burggraf, O. R.  
A linearized analysis of mass-transfer effects on confined laminar vortex flows 397
- Burghart, J. H.  
See Kern, E. A. 1332
- Burghes, D. N.  
See Hewson-Browne, R. C. 1287
- Burgin, G.  
Uniform graphics for simulation 4857
- Burgreen, D.  
Structural growth induced by thermal cycling 5641  
Thermal buckling of a bimetallic beam 9089
- Burka, E. S.  
Aerodynamic investigation of the MHT-C-04-04-10-profile of Carafoli type 5413
- Burke, J. E.  
Scattering by penetrable spheroids 2913
- Burke, J. J.  
Surfaces and interfaces: Chemical and physical characteristics, Vol. 1 4055  
Surfaces and interfaces: Physical and mechanical properties, Vol. 2 4056
- Burkhart, L. E.  
See Halligan, J. E. 1810
- Burling, R. W.  
See Weiler, H. S. 5403
- Burlyakov, A. V.  
Solution of the problem of the creep of a momental spherical shell 9366
- Burman, R. R.  
Waves in plasmas with tensor pressures: Navier-Stokes form for  $\text{div } \vec{p}$  8991
- Burman, Z. I.  
Determination of the eigenforms of the oscillations of a nonfixed system in matrix form with reference to problems of aerohydroelasticity 5708  
Matrix formulation of the problem of the torsion of a rod of arbitrary form of regular character 9337
- Burmester, A.  
On the correlation between sound velocity and density, tensile strength perpendicular to the surface and bending strength of particle board 6154
- Burmistrov, E. F.  
Stability of circular annual orthotropic plates 1655  
Linear theory of the stability of constructionally orthotropic cylindrical shells 5975
- Burmistrov, V. P.  
Calculation of the stresses of freely placed charges of solid-fuel acceleration booster, taking into account the physical nonlinearity for increasing the reliability of the calculation 106
- Burnage, H.  
See Favre, A. 5340
- Burnat, M.  
See Bratos, M. 9662
- Burns, D. J.  
See Mukherjee, B. 7832
- Burns, J. C.  
The iterated equation of generalized axially symmetric potential theory 7941
- Burns, S. H.  
Generation and propagation of finite-amplitude, rounded, inverted sawtooth waves in air 6508
- Burns, S. J.  
A simulated crack experiment illustrating the energy balance criterion 5195
- Burovoi, I. A.  
See Svetozarova, G. I. 8231
- Burridge, R.  
Lacunae in two-dimensional wave propagation 953  
Model and theoretical seismicity 4751
- Burrows, K.  
See Stolarik, J. D. 9904
- Burrows, M. C.  
Dynamic response of hydrazine-nitrogen tetroxide combustion to transverse gas flow 5539
- Burton, R. A.  
Bearing and seal design in nuclear power machinery 9144
- Burton, R. L.  
Acceleration of plasma by a propagating current sheet 7318
- Burton, T. A.  
Some Lyapunov theorems 807
- Bush, A. J.  
Strain-gage installations for adverse environments 9543
- Bush, H. G.  
Multidimensional gas flow through permeable char layers and its effects on ablation 4741
- Bushman, W. W.  
High-altitude wind measurements from rocket exhaust noise 3859
- Bushnell, D.  
Bifurcation phenomena in spherical shell under concentrated and ring loads 1656  
See also Almroth, B. O. 5052
- Bushnell, D. M.  
Heat-transfer and pressure distributions of spherically blunted  $25^\circ$  half-angle cone at Mach 8 and angles of attack up to  $90^\circ$  1103  
Comparison of prediction methods and studies of relaxation in hypersonic turbulent nozzle-wall boundary layers 9692  
See also Beckwith, I. E. 438  
Harvey, W. D. 9720
- Businger, J. A.  
On the distinction between "total" heat flux and eddy heat flux 1939
- Buslenko, N. P.  
The Monte Carlo method: The method of statistical trials 20
- Busol, F. I.  
Effect of nozzle geometry on flow of a supersonic jet into a vacuum 417
- Busse, F. H.  
Shear flow instabilities in rotating systems 3509  
Steady fluid flow in a precessing spheroidal shell 8764  
Bounds on the transport of mass and momentum by turbulent flow between parallel plates 9730
- Bussell, W. H.  
Automatic design of four bar function generators 9601
- Bussi, G.  
The theory of the actuator disk in the study of the three-dimensional motion of incompressible fluid in axial turbomachines 1162  
Determination of pressure characteristics of axial flow turbine 2834
- Buston, J. M.  
See Litton, E. 4284
- Butcher, B. M.  
Dynamic compaction of porous iron 9319  
See also Tuler, F. R. 8632
- Butefisch, K.  
See Koppenwallner, G. 6272
- Butenko, Yu. I.  
Plates of least weight bending to a cylindrical surface 155
- Buti, Gy.  
The singular perturbation theory of differential equations in control theory 36
- Butko, Yu. A.  
Plots for determining periodic regimes in nonlinear automatic control systems 9234
- Butkovskii, A. G.  
Problems in the generalized and optimum control of linear lumped-parameter systems 58  
See also Andreev, Yu. N. 3997
- Butler, B. R.  
The stuttering problem considered from an automatic control point of view 2178
- Butt, P.  
See Andrews, D. G. 4536
- Butter, K.  
Difference between the sound levels of single machines and machine shops 7368
- Butze, H. F.  
Performance of swirl-can turbojet combustors at simulated supersonic combustor-inlet conditions 6444
- Buzdugan, Gh.  
Free transversal vibrations of a beam resting on two long elastic supports 3231
- Buzina, M.  
Temperature distribution in radiant finned-tube walls 4547
- Bychawski, Z.  
A spherical shell under elastic-plastic deformation and creep 5948
- Bycroft, G. N.  
Impacting oscillatory devices 6900

- Byerlee, J. D.  
Brittle-ductile transition in rocks 4210  
Stick slip, stable sliding, and earthquakes: Effect of rock type, pressure, strain rate, and stiffness 5166
- Bykhovtsev, V. E.  
See Vinokurov, E. F. 5155
- Bykov, D. L.  
One method of determining the stresses and deformations in linearly viscoelastic bodies 5880
- Bykov, L. T.  
Determination of the temperature field according to interferograms in bands of "finite" and "infinite" breadth 1992
- Bykovtsev, G. I.  
Wave propagation in three-dimensional elastoplastic bodies during a condition of complete plasticity On the acceleration waves in ideal elastoplastic bodies 3265  
Relations on surfaces of discontinuity of stress in three-dimensional perfectly rigid-plastic solids 6738
- Byrdson, T. A.  
Investigations of the effect of wheel braking on side-force capability of a pneumatic tire 638
- Byrne, R. J.  
Thickness-shear vibration in rectangular AT-cut quartz plates with partial electrodes 947  
Aerodynamic roughness criteria in aeolian sand transport 7429  
Field occurrences of induced multiple gravity waves 9772
- C
- Caban, W.  
Influence of the boundary layer suction on radial impeller vanes 486
- Cabannes, H.  
General mechanics, 2nd edition 3088  
Mechanics: First cycle M.P., P.C. 7569
- Caccamo, P.  
Experimental determination of the elastic characteristic of a suspension with interconnected elements of the "hydroelastic" type 3246
- Caddell, R. M.  
Yield strength variation in ring-rolled aluminum 2465  
The influence of redundant work when drawing rods through conical dies 5172
- Cadle, P. J.  
See Satterfield, C. N. 4738
- Caianiello, E. R.  
Functional analysis and optimization 3030
- Cairo, L.  
Theory of whistler frequency wave propagation in plasma wave guides 5569
- Cakiroglu, A.  
Numerical-integration of forced-vibration equations 3219
- Cakmak, A. S.  
See Ariman, T. 376  
Ariman, T. 3443
- Ariman, T. 5297  
Askar, A. 7638
- Calcaterra, P. C.  
Isolation of helicopter rotor-induced vibrations using active elements 1685
- Calcote, L. R.  
Introduction to continuum mechanics 8727
- Calder, C. A.  
A simple, inexpensive projectile velocity gage 4657
- Calder, C. C.  
See Sayer, F. P. 83
- Calder, K. L.  
Concerning similarity analysis based on the use of governing equations and boundary conditions and Long's method of generalized dimensional analysis 2144
- Calderale, P. M.  
Theoretical and experimental study of the vibration of conical spiral springs 341
- Caldwell, G. L.  
See Seban, R. A. 6388
- Caligiuri, G. P.  
On the analysis and optimum control of a thermal cracking reactor 851
- Caligo, D.  
Critical multipliers,  $\lambda$ , of the uniform lateral pressure  $p_0$  and of the total axial pressure  $N_0$  on a circular cylindrical tube computed by the energy method 5054
- Calladine, C. R.  
Simple ideas in the large-deflection plastic theory of plates and slabs 7679
- Callander, R. A.  
Instability and river channels 8738
- Callari, C. E.  
Compound flexure and torsion in the nonlinear viscous regime of rectilinear beams with open profile 894
- Callegari, A. J.  
An analytical solution of a nonlinear, singular boundary value problem in the theory of viscous fluids 7127  
Nonlinear boundary value problems for the circular membrane 9381
- Callinan, J. P.  
See Knuth, E. L. 3538
- Callis, L. B.  
Solutions of blunt-body stagnation-region flows with nongray emission and absorption of radiation by a time-asymptotic technique 3544
- Calvert, G.  
Practical process control using the root locus 6650  
Practical process control using the root locus: Part 2 9248
- Calvit, H. H.  
Plane and spherical detonation waves in solid explosives 2901  
Some wave-propagation experiments in plasteline-clay rods 6891  
See also Phillips, J. W. 231
- Camac, M.  
Formation of NO in shock-heated air 3529  
See also Taylor, R. L. 3530
- Camahort, J. L.  
Protective coating by surface nitridation of boron filaments 284
- Cameron, I. G.  
An analysis of the errors caused by using artificial viscosity terms to represent steady-state shock waves 1113
- Cameron, R.  
See Johnson, K. L. 4789  
Brockley, C. A. 6860
- Camp, T. R.  
Dispersion conduits 4326
- Campanella, R. G.  
Influence of temperature variations on soil behavior 1710
- Campargue, R.  
Generation of molecular beams by means of a double extraction from pure or doped supersonic jets 3539
- Campbell, B.  
Electrical shock tube with stabilized driver interface 2746
- Campbell, D. A.  
Variable property turbulent heat and momentum transfer for air in a vertical rounded corner triangular duct 6392
- Campbell, D. M.  
See Herrman, L. R. 5006
- Campbell, D. U.  
See Ross, T. K. 6430
- Campbell, J. D.  
See Kenny, P. 3321
- Campbell, J. F.  
Supersonic aerodynamics of large-angle cones 1144  
Supersonic aerodynamic characteristics and shock standoff distances for large-angle cones with and without cylindrical afterbodies 8827
- Campbell, J. L.  
Pulsatile flow behavior in elastic systems containing wave reflection sites 10004
- Campbell, M. E.  
Solid lubrication technology: A review 1432
- Campbell, P. M.  
A numerical method for discrete ordinate and moment equations in radiative transfer 9831
- Campbell-Allen, D.  
The influence of diaphragms on the behavior of multi-box concrete bridge girders 334
- Canard, J.-P.  
See Bruyere, G. 829
- Canavan, G. H.  
Lagrangian Wiener-Hermite expansion for turbulence 7146
- Canavellis, R.  
Jet impact and cavitation damage 4336  
An analysis of cavitation erosion 5192



- Canisius, P.  
See Felkel, K. 789
- Cannon, C. M.  
Damping measurements on soft viscoelastic materials using a tuned damper technique 5100
- Cannon, J. A.  
Air cushion vehicles: San Francisco and beyond 2160
- Cannon, J. N.  
See Armour, J. C. 1080
- Cannon, J. P.  
See Munse, W. H. 1002
- Cannon, J. R.  
A multi-boundary Stefan problem and the disappearance of phases 558  
The determination of unknown parameters in analytic systems of ordinary differential equations 4825  
On the infinite differentiability of the free boundary in a Stefan problem 5500
- Cannon, R. H., Jr.  
Dynamics of physical systems 6695
- Canon, M.  
Constrained minimization problems in finite-dimensional spaces 1527
- Cantin, G.  
Strain displacement relationships for cylindrical shells 2374  
A curved, cylindrical-shell, finite element 3172
- Capello, A.  
On the acceleration of rotors through their critical speeds 5998
- Capes, C. E.  
An experimental study of the effect of dump packing on wall to fluidized bed heat transfer 6397
- Capillon, C.  
A hybrid rocket as gas generator 2024
- Capodanno, P.  
On the plane stationary and irrotational flow of a perfect incompressible fluid round an obstacle placed between two parallel retilinear walls 369  
On the existence and the stability of the rectilinear uniform translation movements of a self-excited blunt profile in a perfect, incompressible irrotational fluid 7944
- Capovani, M.  
Vibrations of rotors: The effect of lubricant damping 8537
- Capriz, G.  
See Laratta, A. 6193
- Capurso, M.  
Plastic behavior of reinforced concrete structures with hardening steel bars 321  
Yield conditions for incompressible isotropic and orthotropic materials with different yield stress in tension and compression 2339
- Caputo, A. A.  
See Alexander, E. L. 3749
- Carafoli, E.  
Application of quasi-conical motions to the study of wing-body lifting systems in supersonic flow 1141
- Minimum drag thin delta wing with finite velocity at the leading edges in supersonic flow 1878  
Optimum shape of the cruciform wing of symmetrical thickness in supersonic flow 2693  
On a theoretical model of a slender delta wing with leading edge separation 5322  
On the delta wing with forced antisymmetry in supersonic flow, considering the leading edge separation 9748
- Carapetian, A. G.  
See Sanford, A. R. 9118
- Carbo Fite, R.  
See De Lustrac, J. 6522
- Carbonell, E.  
Thermodynamic optimum for electrical connections at cryogenic temperatures 7217
- Carden, P. O.  
Mechanical stresses in bonded plane helical solenoids with arbitrary external field 81  
A stationary contacting thermocouple device for measuring the temperature of rapidly moving surfaces 2762
- Cardillo, G. P.  
See Fu, K. S. 856
- Careri, G.  
Vorticity in liquid He II flow through orifices 2594
- Caricato, G.  
On the small oscillations of strings and elastic beams: Part 1 175  
The study of the vibrations of strings and rods by means of Riemann's method 7760
- Carleton, A. J.  
A study of factors affecting the performance of screw conveyors and feeders 9599
- Carleton, R. S.  
Qualification of gas turbine engines for U.S. Navy shipboard use 3746
- Carley, C. T.  
See Bishop, E. H. 8910
- Carley, T. G.  
Transverse shearing stress in rectangular plates 1626
- Carlson, D. E.  
See Petroski, H. J. 8053
- Carlson, L. A.  
Equilibrium air stagnation point boundary-layer calculations using a variable heat of dissociation model 4416
- Carlson, R. L.  
Experimental studies of the buckling of complete spherical shells 8508  
See also Berke, L. 6792
- Carlton, H. E.  
Forced and natural convective mass transfer in multicomponent gaseous mixtures 7285
- Carmichael, A. D.  
See Bindon, J. P. 1937
- Carnegie, W.  
Vibration characteristics of turbine blading 1670  
See also Dawson, B. 8540
- Carney, T. M.  
Numerical experiments with various optimal estimators 5831
- Carnvale, A.  
Absolute sound-velocity measurement in distilled water 6524
- Carr, A. D.  
See Buhr, H. O. 3685
- Carr, L. W.  
Numerical solution of the turbulent boundary layer 6295
- Carrell, J.  
High-speed impact of Plasticine projectiles with laminated Plasticine targets 6052
- Carriere, P.  
Recent results on an investigation of problems in mixing and reattachment 402  
General notions on confluence problems 5405
- Carroll, M. M.  
Finite deformations of incompressible simple solids: Part 1, Isotropic solids 873  
Finite deformations of incompressible simple solids: Part 2, Transversely isotropic solids 1567  
Finite bending, stretching, and shearing of a block of orthotropic, incompressible simple solid 4035
- Carskaddan, P. S.  
Shear buckling of unstiffened hybrid beams 4094
- Carstens, M. R.  
A theory for heterogeneous flow of solids in pipes 9098
- Carstens, T.  
Hydraulics of river ice 7934
- Carstou, J.  
Fundamental equations of electromagnetodynamics of fluids: Various consequences 5560
- Carter, A. W.  
Effects of jet-exhaust location on the longitudinal aerodynamic characteristics of a jet V/STOL model 9028
- Carterette, E. C.  
Mach bands in hearing 10001
- Cartwright, D. E.  
A unified analysis of tides and surges round north and east Britain 6561
- Carver, D. R.  
Extensional vibrations and dynamic loading of thick elastic rings. Developments in Mechanics, Vol. 3: Part 2, Dynamics and Fluid Mechanics 3240
- Cary, B. B.  
Nonlinear losses induced in spherical waves 1364



- Caschi, C.  
Influence of some characteristic parameters on the frequency instability in bi-propellant rocket engines 6453
- Casillas, J.  
See Madinaveitia, M. 3397
- Caslin, J. C.  
See Fettis, H. E. 9206
- Cassanova, R. A.  
Expansion of a jet into a vacuum 35 4
- Cassanto, J. M.  
Base pressure results at  $M = 4$  using free-flight and sting-supported models 404  
Local flow effects on base pressure 5327
- Cassell, A. C.  
Cylindrical shell analysis by dynamic relaxation 2365
- Cassell, J. S.  
Note on the isotropic scattering of radiation from a point source in a finite spherical atmosphere 7254
- Cassidy, E. C.  
Investigations of the exploding wire process as a source for high temperature studies 5624
- Caswell, B.  
Kinematics and stress on a surface of rest 4311
- Catchpole, B. G.  
Fluidic control elements and their possible applications 51
- Catherines, D. S.  
See Adelman, H. M. 2410
- Catherines, J. J.  
Experimental vibration characteristics of 1/40-scale dynamic model of the Saturn V-launch-umbilical tower configuration 1344  
See also Steeves, E. C. 1342
- Catton, I.  
See Edwards, D. K. 8909
- Caughey, T. K.  
Stability of linear dynamic systems with narrow-band parametric excitation 6868  
Whirling of a heavy string under constant axial tension: A nonlinear eigenvalue problem 8450  
See also Atkinson, J. D. 4841  
Atkinson, J. D. 7776
- Causse, R.  
Damping of the wake of an obstacle in a conducting fluid in a transverse magnetic field 8155
- Cavaliere, A.  
Laminar hydromagnetic waves of finite amplitude in plasmas of low temperature 6465  
Propagation of ion waves in a plasma flow toward a transonic point 8116
- Caveny, L. H.  
Contribution of solid-phase heat release to AP composite-propellant burning rate 9845
- Cavicchi, R. H.  
Critical-speed analysis of rigid rotors on flexible foundations 934
- Cazacu, M. D.  
Hydrodynamic similitude in water-hammer phenomena 6343
- Cebeci, T.  
Effect of transverse curvature on skin friction and heat transfer in laminar flows past slender circular cylinders 8002
- Celikovsky, K.  
Contribution to the axial compressor thermodynamic simulating theory 493
- Celinski, Z. N.  
Electrical equivalent circuits of dc MHD generators 2873
- Celmins, A.  
Multi-parameter computation of the refraction index within a blast bubble 5623
- Cenkner, A. A., Jr.  
See Benenson, D. M. 1313
- Cercignani, C.  
Existence, uniqueness, and convergence of the solutions of models in kinetic theory 4391  
Stokes paradox in kinetic theory 4393  
New boundary conditions in the transition regime 5366  
Flow of a rarefied gas past an axisymmetric body: Part 1, General remarks 9703  
Flow of a rarefied gas past an axisymmetric body: Part 2, Case of a sphere 9704  
See also Bassanini, P. 9699
- Cerdonio, M.  
See Careri, G. 2594
- Ceresuela, R.  
Wind-tunnel study of an hypersonic reentry lifting body 654  
Standard ballistic heads HB-1 and HB-2: Summary report on aerodynamic characteristics from Mach 2 to Mach 16.5 2742
- Cerini, D. J.  
Performance characteristics of a single-wavelength liquid-metal MHD induction generator with end loss compensation 7333
- Cernohorsky, J.  
Connection of the vibratory motion parameter measuring readers to the measured object 2425  
Extension of the frequency range of vibratory motion parameter readers by passive correction elements 2426
- Cernosek, J.  
A contribution to the separation of main stresses by the aid of Lamé-Maxwell equations 95
- Cesari, L.  
Existence theorems for multidimensional Lagrange problems 9261
- Cess, R. D.  
Infrared radiative energy transfer in gaseous systems 3696  
The interaction of thermal conduction and infrared gaseous radiation 8074  
See also Mighdoll, P. 3697  
Pergament, S. P. 5490
- Chaban, A. A.  
Instability of elastic oscillations in piezoelectrics in alternating electric fields 207
- Chabert, J.  
A study of the movement of water and of the forces on moored ships in a "water slope" 2586
- Chabert-D'Hieres, G.  
See Bonnefille, R. 6562
- Chace, M. A.  
Analysis of the time-dependence of multi-freedom mechanical systems in relative coordinates 8388
- Chace, W. G.  
A bibliography of the electrically of the electrically exploded conductor phenomenon 5626
- Chadwick, P.  
Elastic wave fields generated by scalar wave functions 960
- Chae, Y. S.  
Viscoelastic properties of snow and sand 6731
- Chaeveskii, M. M.  
Evaluation of the effect of aggressive media on the basis of thermodynamics of the solutions formed 2758
- Chaikin, M.  
See Collins, J. D. 3126
- Chajes, A.  
Inelastic deflections of beams 7666
- Chakrabarti, A.  
On some mixed boundary value problems of plane elasticity associated with a wedge 6703  
On a mixed boundary value problem of two-dimensional elasticity theory 8394
- Chakrabarti, R. K.  
See Ghosh, P. K. 2350
- Chakrabarti, S. K.  
Stress distribution in a composite infinite plate 5003  
Equilibrium of a heterogeneous cone under an axial load 5020
- Chakrabarty, J.  
Plastic instability of thick-walled tubes with closed ends 7651
- Chakraborty, B. B.  
Stability of a perfectly conducting liquid jet in the presence of a magnetic field 8138
- Chakraborty, J. M.  
Method of Bolzano Koshi for obtaining the real roots of polynomial and transcendental equations 2204
- Chaleat, R.  
Numerical analysis of small oscillations as a function of their amplitude 9406
- Chalot, R.  
Some thoughts on the efficiency of ventilating fans and its calculation 2734
- Chalupnik, J. D.  
Stress concentrations in bolt-thread roots 6201

- Chamberlain, E. W.  
On Liouville transformations of independent complex variable in the asymptotic theory of ordinary differential equations 6
- Chamberlain, J.  
A 337  $\mu\text{m}$  CW maser interferometer for plasma diagnostics 9888
- Chambers, L. G.  
Two electromagnetic analogies for a hydrodynamic problem 4595
- Chambre, P. L.  
See Witze, C. P. 7059
- Chamis, C. C.  
Critique on theories predicting thermoelastic properties of fibrous composites 5656
- Champine, R. A.  
See Kelley, H. L. 4616
- Champion, J. V.  
Flow birefringence in simple liquids 2577
- Chan, B. C.  
Explosions due to pressurized spheres at the ocean surface 2904
- Chan, H. S. Y.  
Mathematical programming in optimal plastic design  
Half-plane slip-line fields and Michell structures 3393
- Chan, S.-K.  
The initial value problem in classical elasticity 223
- Chand, I.  
See Warsi, Z. U. A. 5608
- Chander, S.  
Phase velocity and energy loss in magneto-thermo-elastic plane waves 2440
- Chandler, R. J.  
A note on the measurement of strength in the undrained triaxial compression test 1715
- Chandna, R. C.  
See Bansal, T. D. 8912
- Chandra, S.  
See Shah, S. P. 3398
- Chandra, U.  
Theory of head waves for focal mechanism studies 7423
- Chandrasekaran, A. R.  
Dynamic response of nonlinear systems  
Live load effect on dynamic response of structures 4292  
9593
- Chandrashekhara, K.  
See Iyengar, K. T. S. R. 2115
- Chang, C. H.  
An asymptotic solution of conical shells of constant thickness 903
- Chang, I.-D.  
See Harper, E. Y. 5292
- Chang, K.  
See Beckett, R. 9157
- Chang, K. T.  
An investigation of analog materials for the study of deformations in metal processing simulations 995  
Elastic-plastic stress distribution in a compressed ring 6133
- Chang, L. K.  
Nonlinear thermal elastic buckling of conical shells 1373
- Chang, P.-Y.  
On the stability of grillage beams 7730
- Chang, S. S. L.  
Optimum filtering and control of randomly sampled systems 7561
- Chang, T.-C.  
Normal modes of uniform beams 9415
- Chang, Y. F.  
See Deckkar, B. E. L. 5350
- Chang, Z. P.  
Pure transverse modes for elastic waves in crystals 6880
- Chanh, N.  
Experimental investigation of soil pressure on a wall 5159
- Channabasappa, M. N.  
Heat transfer by laminar flow into fluids flowing with velocity pulsations in a circular pipe with circumferentially varying and fluctuating heat flux 7233
- Chapel, R. E.  
Finite-difference solutions for plane stresses 4928  
See also Smith, H. W. 9544
- Chapman, C. P.  
Scanning techniques for random noise testing 2421
- Chapman, J. C.  
See Yam, L. C. P. 8688
- Chapman, T. W.  
See Preston, G. T. 2757
- Chapoy, L. L.  
See Tobolsky, A. V. 1795
- Chappaz, G.  
Analytical and analogical aspects of solutions of Van der Pol equation in sinusoidal forced regime 2399
- Chapront, J.  
Application of literal series to the main problem of the lunar theory 643
- Chapskii, K. A.  
Creep of certain types of glass-reinforced plastics (GRP) in bending 6735
- Charaev, G. G.  
Testing of operative state and fault diagnosis in an incompletely homogeneous two-dimensional structure 9250
- Charles, M. E.  
See Figueiredo, O. 1086  
Bourne, D. E. 6227  
Sestak, J. 8730
- Charm, S.  
Heat transfer coefficients in blood flow 8306  
Static method for determining blood yield stress 755
- Charnes, A.  
Solution theorems in probabilistic programming: A linear programming approach 2197
- Charnow, M.  
See Musen, P. 6493
- Charpenet, G.  
See Launay, P. 9079
- Charraudeau, J.  
Influence of viscosity variations on the coefficients of friction and the heat transfer coefficients in a laminar two-dimensional boundary layer with constant mass flow 7999
- Chartier, C.  
Device for measuring fluctuations of potential in a turbulent flow 7153
- Charwat, A. F.  
Effect of mass addition on the heat transfer to a cavity in supersonic flow 8103
- Chatterjee, R. N.  
Note on the torsion of a large non-homogeneous slab resting on a rigid base and having shearing forces distributed along the circumference of a circular area on the upper surface 3188
- Chatterjee, S. K.  
See Gulbransen, L. B. 3131  
Girija, H. M. 9474
- Chattopadhyay, A.  
Cutting characteristics of constant pressure machining 5178
- Chattopadhyay, N. C.  
Thermal stress in a semi-infinite aeolotropic cylinder with a smooth rigid insulating cover on the curved surface due to flow of heat through a circular area on the free end 2931  
Note on thermoelastic stresses in a thin semi-infinite rod due to some time-dependent temperature applied to its free end 6538
- Chattopadhyay, R.  
Functional analytic analysis of a pursuit problem 4887
- Chaudhary, D. R.  
Heat transfer through a three-phase porous medium 1207  
Heat transfer through porous and disperse media 4747  
Thermal conductivity of two-phase porous materials: Dry soils 9974
- Chaudhri, M. M.  
See Bowden, F. P. 5628
- Chaudhry, H. R.  
Finite extension inflation and torsion of a hollow cylindrical reinforced dielectric 3189  
Torsional motion of a cylindrical mass of an incompressible anisotropic fluid 7025  
Rotation of a reinforced circular cylindrical tube 7623  
Large deformations of reinforced compressible elastic materials 8392  
See also Singh, W. 1586
- Chaudhuri, P. R.  
Thermal stress propagation in an infinite viscoelastic thin plate 9955
- Chaudhuri, S. P.  
See Sage, A. P. 5785
- Chauhan, A. P.  
Small- and large-amplitude free vibrations of square shallow shells 9424

- Chawla, A. N.  
See Chaudhry, H. R. 7623
- Chawla, J. M.  
Total pressure drop of refrigerants  
flowing through evaporator tubes 384  
Frictional pressure loss in the flow  
of liquid-gas mixtures through  
horizontal pipes 7032
- Chawla, S. S.  
Magnetohydrodynamic waves in  
second-order fluids 5568  
Magnetohydrodynamic unsteady  
free convection 9865
- Chazan, D.  
Profit functions and optimal control:  
An alternate description of  
the control problem 3985
- Chebanov, V. M.  
See Smotrin, N. T. 875  
Vakulenko, A. A. 879  
Smotrin, N. T. 4245
- Chebotaev, G. A.  
Analytical and numerical methods  
of celestial mechanics 1323  
Circulation control and its application  
to stopped rotor aircraft 3560
- Cheesewright, R.  
See Lafferty, J. F. 4356
- Chen, H. Y.  
Mass transfers to spherical drops or  
bubbles at high Reynolds number 699
- Chekalin, E. K.  
Jet outflow of metallic plasma into  
a vacuum 616
- Chekanavichyus, V. P.  
See Meshkauskas, Y. I. 1040
- Chekhov, V. N.  
An approximate method of determining  
stresses in a circular  
cylindrical shell with a curvilinear  
opening 9383
- Chekov, V. N.  
See Chekhov, V. N. 9383
- Chen, C. C.  
See Gibson, C. H. 8010
- Chen, C. F.  
A novel approach to linear model  
simplification 8337  
See also Langfelder, L. J. 5154  
Wright, R. J. 8953
- Chen, C. H.  
Mechanical properties of fiber reinforced  
composites 9313
- Chen, C. P.  
Electromagnetic wave interactions  
with a moving ionizing shock 2054
- Chen, C.-S.  
See Kinnen, E. 2996
- Chen, C.-T.  
Controllability and observability of  
composite systems 3031  
Bounded-input bounded-output stability  
of linear time-varying feedback  
systems 3036  
Upper-bound solutions to axisymmetric  
extrusion problems 6080  
 $L_p$  stability of linear time-varying  
feedback systems 6644  
A proof of controllability of Jordan  
form state equations 8378
- Chen, F. F.  
Measurement of low plasma densities  
in a magnetic field 2876
- Chen, F. Y.  
An analytical method for synthesizing  
the four-bar crank-rocker mechanism 9604
- Chen, J. C.  
Probe for detection of voids in  
liquid metals 2949
- Chen, K. K.  
Spatial stability of the new solutions  
of the Falkner-Skan equation 4402  
Boundary layers with small departures  
from the Falkner-Skan profile 5374
- Chen, M. M.  
Evolution of two-dimensional periodic  
Rayleigh convection cells of  
arbitrary wave-numbers 545
- Chen, P. J.  
The growth of acceleration waves  
of arbitrary form in homogeneously  
deformed elastic materials 4163  
On a theory of heat conduction  
involving two temperatures 8901  
Thermodynamic influences on the  
propagation and the growth of  
acceleration waves in elastic materials 9463
- Chen, T. L.  
See Parks, V. J. 3115  
Durelli, A. J. 9538
- Chen, W. F.  
Curvature and the solution of eccentrically  
loaded columns 8499  
See also Drucker, D. C. 7645
- Chen, W. T.  
Stresses in some anisotropic materials  
due to indentation and sliding 7616  
Plane thermal stress at an elliptical  
elastic inclusion under uniform  
heat flow 9074
- Chen, W. Y.  
See Van Atta, C. W. 6308
- Chen, Y. M.  
A simple statistical theory of the  
stress-strain relation in plasticity 7643
- Chen, Y. N.  
Lateral Helmholtz resonator silencer  
with turbulence absorption 2914
- Chen, Y. W.  
See Hersh, R. 3001
- Cheneau, H.  
On the presentation of long term  
tests in the study of strains subjected  
by the ship at sea 1414
- Cheney, J. A.  
See Percival, C. M. 8568
- Cheng, D. C.-H.  
Hysteresis loop experiments and the  
determination of thixotropic properties 3444
- Cheng, D. H.  
Sonic boom effects on structures: A  
simplified approach 1762  
In-plane bending of curved circular  
tubes 4062
- Cheng, D. K.  
See Kong, J.-A. 1272
- Cheng, F. Y.  
Dynamics of frames with nonuniform  
elastic members 5083  
Admissible loads of gable frames 5237
- Cheng, H. K.  
Freezing of dissociation and recombination  
in supersonic nozzle  
flows: Part 1, General discussion  
and special analysis; Part 2, More  
general analysis and numerical example 1849  
See also Iida, H. T. 7102
- Cheng, K. C.  
Numerical solution for combined  
free and forced laminar convection  
in horizontal rectangular  
channels 9821
- Cheng, M. C.  
Output autocorrelation functions of  
smooth and hard limiters 1499  
Output autocorrelation functions of  
biased full-wave smooth and hard  
limiters 6669
- Cheng, S.  
Elasticity solution of torsion of  
sandwich plates 129  
See also Ugural, A. C. 160  
Chen, C. H. 9313
- Cheprasov, V. A.  
On the problem of motion control  
for nonlinear systems 5758
- Cheprasov, V. P.  
See Pavlov, V. G. 6677
- Cheremnykh, S. V.  
See Sidorov, I. M. 41
- Cherenkov, G. P.  
See Gupalo, Iu. P. 5659
- Cherepanov, G. P.  
Cracks in solids 2473  
Crack propagation in continuous  
media 8622
- Cherepanov, G. Ts.  
See Galin, L. A. 911
- Cherepovskii, Yu. T.  
See Zvol'skii, S. T. 3289
- Cheret, R.  
Lagrange equations of the movement  
of a perfect fluid near an  
arbitrarily movable geometric surface 8862
- Cherevatskii, S. B.  
Arbitrary filament shells of revolution  
loaded by pressure 9373
- Cherkashin, A. V.  
See Konovodchenko, V. I. 6211
- Cherkasov, I. I.  
On the mechanism of residual deformation  
in the fragile porous materials 4973  
Determination of the density and  
mechanical strength of the surface  
layer of lunar soil at the landing  
site of the Luna 13 probe 6071  
Compressive strength of brittle  
porous materials without lateral  
restraint 6939

- Cherkesov, L. V.**  
The Tsunami problem for a viscous fluid 3582
- Chermykh, I. A.**  
See Simbirskii, D. F. 528
- Chern, J.-M.**  
Bounds on stresses caused in sandwich arches by bounded anelastic strains 4064  
Bounds on stresses caused in structures by bounded anelastic strains 8677
- Chernavskii, S. Ya.**  
See Marshak, Yu. L. 3734
- Cherneva, Z.**  
See Cheshankov, B. 4004
- Chernousko, F. L.**  
Some problems of optimal control with a small parameter 3077
- Chernov, I. A.**  
Transonic flow in the neighborhood of the point of intersection of two sonic lines 7967
- Chernukha, Y. A.**  
Effect of uneven heating on the stability of a spherical shell with finite sags and unsymmetrical deformation 5647
- Chernyakov, R. G.**  
See Bartenev, G. M. 6105
- Chernyavskii, B. A.**  
See Shalnev, K. K. 2611  
Shalnev, K. K. 4365
- Chernyavsky, O. F.**  
See Hochfeld, D. A. 7514
- Chernyi, G. G.**  
See Levin, V. A. 4652
- Chernykh, E. M.**  
The self-similar problem of impact loading in a nonlinearly elastic material 4170  
Instability of a spherical bubble in a field of variable pressure 4337
- Chernyshenko, I. S.**  
Elasto-plastic bending of cylindrical shells with finite deflections 2363  
Elasto-plastic equilibrium of shells of revolution for finite deformations 2373  
Nonlinear problems for a spherical shell with a reinforced opening 5022
- Chernyshev, G. N.**  
Bending of shells with positive curvature under a concentrated load 4083
- Chernyshev, M. K.**  
See Kogan, B. Ya. 9251
- Chernyshev, V. M.**  
Free vibrations of plastic structures with consideration of the specific nature of the elastic and damping properties of the material: Systems with distributed parameters 949
- Chernysheva, M. N.**  
See Magalif, V. Ya. 5947
- Chernyshov, A. D.** 7108
- Cherry, J. T.**  
A unique description of the failure of a brittle material 4208
- Chervinsky, A.**  
Turbulent swirling jet diffusion flames 579  
Effect of swirl on flame stabilization 2822
- Chervonski, M. I.**  
See Rapoport, M. B. 1390
- Cheshankov, B.**  
Periodic motions of a conservative system with  $n$  degrees of freedom 4004
- Cheslak, F. R.**  
Cavities formed on liquid surfaces by impinging gaseous jets 7066
- Chester, P. F.**  
See Edmond, J. T. 4497
- Chester, W.**  
Resonant oscillations of water waves: Part 1, Theory 2713  
Resonant oscillations of water waves: Part 2, Experiment 2714
- Cheung, Y. K.**  
Slab bridges with arbitrary shape and support conditions: A general method of analysis based on finite elements 3406  
The finite strip method in the analysis of elastic plates with two opposite simply supported ends 5923  
Plates and beams on elastic foundations: Linear and nonlinear behavior 7866  
Finite strip method analysis of elastic slabs 9344  
See also Davies, J. D. 125
- Chevalier, J.**  
Theoretical and experimental studies on energy changes in low-head hydroelectric plant tail water structures 3454  
A study of the mechanical operation of a Kaplan runner blade under transient conditions 4441
- Chevalier, P.**  
See Kubanek, G. R. 4522
- Chevalier, R.**  
Propulsion with solid propellants 5552
- Chevray, R.**  
The turbulent wake of a body of revolution 4364  
See also Kovaszny, L. S. G. 5404
- Chhabra, D. S.**  
See Wilfinger, R. J. 952
- Chi, L. K.**  
Small perturbation method in kinetic theory 7122
- Chiang, C.-S.**  
Investigation of an axisymmetric turbulent jet in the case of efflux from a nozzle with insufficient widening 9689
- Chiang, F.-P.**  
Moire-fringe interpolation and multiplication by fringe shifting 5203  
Production of high-density moire grids 7845  
See also Parks, V. J. 2499  
Sciannarella, C. A. 3364  
Durelli, A. J. 9530
- Chiao, H. C.**  
See Jungbluth, E. D. 299
- Chiba, M.**  
On rosette gage factor of photoelastic strain gage: Dependence on strain, temperature and fringe order 2503
- Chiba, N.**  
See Taniguchi, K. 499
- Chibrikova, L. I.**  
Method of symmetry in the theory of elasticity 1587
- Chick, B. B.**  
See Anderson, G. P. 9931
- Chicurel, R.**  
Shrink buckling of thin circular rings 2388  
Use of mass as a perturbation parameter in vibrations 3218
- Chien, K.-Y.**  
Angular-moment-averaged absorption coefficients in nongrey radiation 7260
- Chien, S.-F.**  
Heat transfer from a short heated section in annular flow 8938
- Chiesi, F.**  
Experimental liquid propelled rocket engine cooled in the combustion chamber by means of ablatives 5553  
See also Casci, C. 6453
- Chikhladze, G. E.**  
Dependence between the nominal and contour areas in the computational formulas of contact rigidity 100
- Childs, D. R.**  
Solution of the stress-equilibrium and compatibility equations in the presence of body forces and arbitrary temperature fields 4020
- Chin, Y.**  
See Kawaguchi, M. 3410
- Ching, A.**  
Stress-concentration factors for multiple semielliptical notches in beams under pure bending 3358  
Strength and stress-strain properties of rapidly heated laminated ablative materials 5648
- Chinitz, W.**  
See Spadaccini, L. J. 2015
- Chinn, J.**  
Ponding of liquids on flat roofs 9587
- Chirukin, A. K.**  
Turbulent boundary layer at the intake part of a radial diffuser 1863
- Chisnell, R. F.**  
Radiant heat transfer in a spherical symmetric medium 552
- Chistyakov, Y. A.**  
Load-carrying capacity of eccentrically compressed round columns 6782
- Chittawadgi, B. S.**  
Effect of additives on the ignition and combustion of liquid sprayed fuels 5527
- Chiu, C.-L.**  
Stochastic open channel flow 3452



- Chiu, W. S.  
On real fluid flow over yawed circular cylinders 434
- Chivers, T. C.  
Effect of air content on advanced cavitation 3468
- Chizhenkov, V. M.  
Condition of aperiodic transitions of a four-gyroscope vertical in the case of finite angles of deviation of the gyroscopes 9281
- Chlenov, V. A.  
Some properties of a vibrating fluidized bed 6222
- Chmielewski, R. M.  
Transport properties of a nonequilibrium partially ionized gas in a magnetic field 2048
- Cho, Y.-S.  
An off-axis circle criterion for the stability of feedback systems with a monotonic nonlinearity 4868
- Choi, H. Y.  
See Lee, C.-O. 8850
- Choi, S. Y.  
Determination of melt viscosity as a function of hydrostatic pressure in an extrusion rheometer 8735
- Cholette, A.  
See Cloutier, L. 576  
Garceau, J. 3493
- Chorin, A. J.  
Numerical solution of the Navier-Stokes equations 9654
- Chou, P. C.  
Radial propagation of axial shear waves in nonhomogeneous elastic media 2436  
Analysis of axisymmetrical motions of cylindrical shells by the method of characteristics 3171
- Chou, S.-C.  
Numerical solution of stress waves in layered media 6046
- Chou, S.-I.  
Efflux perturbation in slow viscoelastic flow through tubes 2575  
On the theory of plane stress for finite deformations 4995
- Chou, Y.-S.  
Inviscid hypersonic flow past blunt bodies 7103
- Choudhary, R. C.  
See Singh, S. S. 4413
- Chow, C.-Y.  
Flows induced by nonuniform magnetohydrodynamic pinch 1292
- Chow, W. L.  
Study of jet mixing problems by Meksyn's method 4383
- Chowdhury, K. L.  
See Dhaliwal, R. S. 4712
- Chowdhury, S. B.  
Studies on pneumatic transport of coal 3826
- Christensen, R. M.  
Variational and minimum theorems for the linear theory of viscoelasticity 2326
- Viscoelastic properties of heterogeneous media 9326
- Christiansen, W. H.  
Study of shock waves in a nonequilibrium plasma 1300
- Christof Ehrler, O. M.  
Nonlinear parameters of vibrating foundations 6013
- Chronowicz, A.  
Parabolic velaroidal shells 6174
- Chrzanowski, M.  
Pure bending in elements under the conditions of established creeping 7660
- Chu, C. K.  
Numerical experiments of magneto-hydrodynamic shocks and the stability of switch-on shocks 8146
- Chu, C.-M.  
See Wu, Y.-K. 3761
- Chu, F. K.-H.  
See Woods, W. A. 9789
- Chu, P. S. Y.  
Theory of lubrication applied to pressure nozzle design in wire drawing 7453
- Chu, S.-L.  
See Doyle, J. M. 5032
- Chu, W.-H.  
Subharmonic oscillations in an arbitrary tank resulting from axial excitation 1158  
A theory for nonlinear transverse vibrations of a partially filled elastic tank 1912  
Theoretical and experimental study of ship-roll stabilization tanks 3864  
End thermal stresses in a long circular rod 4705
- Chu, Y. H.  
See Brown, B. J. 3457
- Chuang, K.  
A study of state spaces and conditional probability distributions of a class of distributed parameter stochastic systems 7545
- Chuang, K. C.  
Application of the optical correlation measurement to detection of fatigue damage 1014
- Chudnovskii, A. D.  
Effect of low-frequency loading on tendency of low-carbon steels to ductility loss 282  
See also Kudryavtsev, I. V. 8640
- Chudov, L. A.  
See Belenkii, V. Z. 1816
- Chugh, O. P.  
Pressure gradient and kinetic energy of the gases using a very realistic approximation for the density behind the projectile in the gun barrel 3815  
Isothermal solution of ballistics of guns with a more realistic gas density function for a general quadratic form 9046
- Chughajev, R. R.  
On stability analysis of earth slopes 4203
- Chukanov, V. I.  
Accurate calculation of a flexible belt drive 8705
- Chulkov, P. P.  
See Grigolyuk, E. I. 5945
- Chun, D. H.  
Stability of a plane Poiseuille flow of a second-order fluid 2573
- Chung, K.  
Plasma heating by the fast hydro-magnetic wave 1273
- Chung, P. M.  
Merged stagnation shock layer of nonequilibrium dissociating gas 6273  
Periodic fluctuation of chemical species over a reactive surface 9726
- Churakova, S. V.  
See Gabasov, R. 5826
- Churkina, G. P.  
See Maslennikov, M. V. 9884
- Chyung, D. H.  
Linear optimal systems with time delays 4890
- Ciborowski, J.  
Drying of wet solid spheres through contact with dry fine solid particles during mixing 569
- Cicala, P.  
Parametric expansions in the linear theory of cylindrical shells 5944
- Cichos, M.  
See Pohlman, R. 2918
- Cichowicz, L.  
See Millheim, K. K. 3844
- Ciechanowicz, W.  
On the on-line statistical identification of nuclear power reactor dynamics 2246
- Cieslak, K.  
A rectangular plane grate on rigid supports at the corners 8696
- Cilliers, W. A.  
The preheating of plasma in a megajoule theta-pinch experiment 3772
- Cincotta, J. J.  
See Jones, G. W., Jr. 7075
- Cinque, A. A.  
Sizing piping networks for incompressible flow with a digital computer 2583
- Ciobanu, G.  
On a theory of thermoviscoelasticity 2937
- Cipolla, J. W., Jr.  
Kinetic description of cylindrical heat conduction in a polyatomic gas 6281
- Cirlig, A.  
See Maruta, Al. 4334
- Cirodde, R.  
See Brocard, J. 880
- Citakoglu, E.  
Dropwise condensation: Some factors influencing the validity of heat-transfer measurements 2793
- Ciuffi, R.  
Stresses and strains in constant thickness conical shells loaded with pressure variable along cone axis 9356



- Claiborne, L. T.  
Ultrasonic attenuation in ZnO 9932
- Clamen, A.  
Drag coefficients of evaporating spheres in a turbulent air stream 2811  
Effects of turbulence on particulate heat and mass transfer 4553
- Clark, C.  
A local thermal dilution flowmeter for the measurement of venous blood flow in man 1443
- Clark, D. R.  
See Schmidt, J. R. 1479
- Clark, E. N.  
See Witmer, E. A. 6971
- Clark, H. T.  
See Shahrokhi, F. 4529
- Clark, J. A.  
Photoelastic study of high-frequency stress waves propagating in bars and plates 6124  
A study of incompressible turbulent boundary layers in channel flow 6290
- Clark, J. W.  
See Jombock, J. R. 8514
- Clark, K. K.  
Transient pressure testing of fractured water injection wells 9112
- Clark, L. G.  
See McQueary, C. E. 929  
Sebesta, H. R. 1518  
Garrard, W. L. 1541  
Garrard, W. L. 6655
- Clark, M. R.  
Comparison of small water-graphite nuclear rocket stages with chemical upper stages for unmanned missions 1265
- Clark, R. G.  
See Wilson, G. M. 524
- Clark, R. K.  
See Brewer, W. D. 2814
- Clark, W.  
See Mason, G. 1712
- Clarke, B.  
Rheology of coarse settling suspensions 5271
- Clarke, D. J.  
Seiche motions for one-dimensional flow 5691
- Clarke, J. F.  
The reflection of a plane shockwave from a heat-conducting wall 7984  
See also Foster, R. 1830
- Clarke, J. M.  
A comparison of some methods for predicting creep strain and rupture under cyclic loading 4957
- Clarke, N. S.  
Two-dimensional flow under gravity in a jet of viscous liquid 393  
On a two-dimensional exterior Stokes flow with mixed boundary conditions 8763
- Clarkson, B. L.  
Stresses in skin panels subjected to random acoustic loading 8556
- Claus, W. D., Jr.  
See Tauchert, T. R. 2930
- Clay, W. G.  
See Herrmann, J. 2625
- Clayden, W. A.  
Cylindrical afterbodies at  $M_\infty = 2$  with hot gas ejection 6320  
See also Bowman, J. E. 6321
- Clayton, B. R.  
An analogy for laminar boundary layers on curved or porous surfaces 4401
- Clayton, R. M.  
An experimental description of destructive liquid rocket resonant combustion 4569
- Cleary, J. R.  
See Hales, A. L. 9117
- Cleary, J. W.  
Effects of angle of attack and bluntness on the shock-layer properties of a  $15^\circ$  cone at a Mach number of 10.6 2702
- Cleary, S. F.  
See Hamrick, P. E. 5733
- Clemedson, C.-J.  
A mechanoelectric transducer for recording transient motion in biological experiments 7476
- Clemmow, P. C.  
A note on the two-stream instability 1280
- Clerc, D.  
Method for obtaining the natural modes by calculation of the optimum harmonic excitation based on the crude results of vibration tests 197
- Clifton, R. J.  
The elastic-plastic boundary in one-dimensional wave propagation 8566
- Cloete, F. L. D.  
Dense phase flow of solids-water mixtures through vertical pipes 693
- Clough, G. W.  
See Vesic, A. S. 979
- Clough, R. W.  
A finite element approximation for the analysis of thin shells 2364  
See also Cantin, G. 3172
- Clough, W. R.  
The rosette, star, tensile fracture Neck-and-split tensile fracture of anisotropic plate steel 1725  
Alloy steel dynamic strain-aging and notch brittle fracture 9515
- Cloutier, L.  
Effect of various parameters on the level of mixing in continuous flow systems 576  
See also Garceau, J. 3493
- Clois, D.  
Study of the evolution of a jet in a rotating flow: Experimental set-up 7082
- Culow, E. E.  
The transmission of heat through textile fabrics: Part 3, A new thermal-transmission apparatus 7282
- Coakley, T. J.  
A generalized averaging method for linear differential equations with almost periodic coefficients 6608
- Coantic, M.  
On the distribution of the mean and turbulent velocities in a conduit as a function of the Reynolds number 7086  
Experimental study of the turbulence in a conduit of circular cross section 7152  
Some new results on the turbulence in a viscous sublayer 7994
- Coates, D.  
See Wambsgans, M. W., Jr. 3607
- Coates, D. F.  
The equations of state up to 250kb of a magnetite and a quartzite 6077
- Coats, D. E.  
See Fendell, F. E. 3713
- Cobble, M. H.  
See Sharp, G. R. 7756
- Cocchi, M.  
See Caligiuri, G. P. 851
- Cochina, N. N.  
Some problems concerned with a nonsteady gas motion in the case of cylindrical and spherical symmetry 7121
- Cochran, J. A.  
On the uniqueness of solutions of linear differential equations 5754
- Cochran, T. H.  
Impulsive motion on a flat plate pulsed with uniform heat flux 8049
- Cocks, F. H.  
A stress corrosion cell for uniaxial tensile tests 2495
- Cockshutt, E. P.  
Cycle calculations for turboprop engines 6370
- Cody, W. J.  
Chebyshev approximations for the exponential integral  $Ei(x)$  9211
- Coermann, R.  
Contribution on the dynamic testing of safety belts: An experimental investigation 8308  
See also Vogt, H. L. 5730
- Cogan, J. P., Jr.  
FORMAT-Fortran Matrix Abstraction Technique: Vol. 6, Description of digital computer program-Phase 1 9218
- Cohen, A.  
Location-design control of transportation noise 666
- Cohen, D. S.  
Positive solutions of nonlinear eigenvalue problems: Application to nonlinear reactor dynamics 2186
- Cohen, E.  
See Vellozzi, J. 5238
- Cohen, E. G. D.  
Fundamental problems in statistical mechanics, Vol. 2 2750
- Cohen, G. A.  
Effect of a nonlinear prebuckling state on the postbuckling behavior and imperfection sensitivity of elastic structures 2397

- Cohen, G. A. (*Continued*)  
The effect of edge constraint on the buckling of sandwich and ring-stiffened 120 degree conical shells subjected to external pressure 3210
- Cohen, I. M.  
First-order effects of production on the continuum theory of spherical electrostatic probes 3775
- Cohen, J. M.  
Gravitational collapse of rotating bodies 4919
- Cohen, L. J.  
Stress, strain and displacement fields 103  
*See also* Ishai, O. 4962  
Glucklich, J. 6097
- Cohen, L. S.  
Effect of waves at a gas-liquid interface on a turbulent air flow 2716
- Cohen, M. I.  
Melting of a half-space subjected to a constant heat input 7264  
Laser interconnection of wires 9614
- Cohen, R.  
*See* Wambsganss, M. W., Jr. 3607  
Soedel, W. 9529
- Cohn, M. Z.  
Limit design of reinforced concrete frames 8684
- Colburn, D. S.  
*See* Sonett, C. P. 3853
- Cole, B. N.  
Strategy for cross-bores in high pressure containers 9585
- Cole, D. G.  
Some mechanical aspects of compression testing machines 6142
- Cole, J. D.  
The blowhard problem: Inviscid flows with surface injection 3546  
Perturbation methods in applied mathematics 8310  
A class of three-dimensional, optimum hypersonic wings 9746
- Cole, J. K.  
*See* Skoglund, V. J. 7107
- Coleman, B. D.  
Some properties of gases with vibrational relaxation when viewed as materials with memory 1946  
On thermodynamic conditions for the stability of evolving systems 3629  
On the stability against shear waves of steady flows of nonlinear viscoelastic fluids 9620
- Coleman, R. F.  
On the validity of laryngeal photo-sensor monitoring 6529
- Coleman, T. G.  
A digital analog simulator for biological research 10006  
*See also* Guyton, A. C. 3897
- Colgate, S. A.  
Collisionless electrostatic shocks 2055
- Collicutt, G. J.  
*See* Hughes, J. M. 6183
- Collins, I. F.  
An optimum loading criterion for rigid/plastic materials 114  
Geometric properties of some slip-line fields for compression and extrusion 6914
- Collins, J. D.  
Structural and nonstructural effects in the observed stress-strain curve for wet wool fibers 3126
- Collins, R. P.  
*See* Cunniff, P. F. 237
- Collis, R. T. H.  
Lidar observations of atmospheric motion in forest valleys 3858
- Colombo, A.  
Determination of the dynamic response of electrical systems by means of a digital program 2206
- Colonell, J. M.  
Laboratory simulation of sea waves 3595
- Coltman, J. W.  
Acoustics of the flute 7367  
Sounding mechanism of the flute and organ pipe 8165
- Combelles, R.  
*See* Laroche J. 3634
- Combes, G.  
Analysis of errors resulting from the practical use of the characteristics method in calculating pressure surge 1909
- Comini, G.  
Heat transfer of boiling refrigerants 5507
- Como, M.  
On dynamics of prestressed thin beams 7759  
Extension, bending and twisting of thin vault arches 9580
- Compton, W. B., III  
Effect on base drag of recessing the bases of conical afterbodies at subsonic and transonic speeds 3572
- Concus, P.  
Transient diffusion in a composite slab 1252  
Static menisci in a vertical right circular cylinder 8848  
Low gravity lateral sloshing in a hemispherically bottomed cylindrical tank 9781
- Coney, T. A.  
Effect of flow rate on the dynamic contact angle for wetting liquids 7058
- Conger, R. L.  
Model for converging detonations in solid explosives 9045
- Conil, P.  
The self-supporting shell 8675
- Conlee, G. D.  
*See* Lee, C. W. 3187
- Conn, J. F. C.  
Results obtained with a series of geometrically similar models 7441
- Connelly, R. E.  
*See* Ursek, D. C. 7952
- Conner, M.  
*See* Hade, G. 4755
- Connolly, A.  
*See* Porcelli, G. 2269
- Connolly, C. C.  
An ultrasonic generator giving widely variable ultrasonic parameters 679
- Connolly, D. J.  
Low environmental pressure MPD arc tests 7334  
*See also* Sovie, R. J. 9885
- Conrad, E. W.  
Interim summary of liquid rocket acoustic-mode-instability studies at a nominal thrust of 20,000 pounds 5533
- Conrad, G.  
Linearization of thermocouple voltages 3649
- Constable, I.  
*See* Williams, J. G. 8624
- Constantinescu, Al.  
Achievements on stress-strain measurements in foundation and earth structures at the Institute of Hydro-technical Research 6908
- Constantinescu, V. N.  
A method for the determination of the pressure distribution in externally-pressurized gas lubricated journal bearings with a central row of orifices 3880  
On the influence of magnetic and electrical fields on gas lubrication 4791  
On the influence of some boundary conditions on gas lubrication 4792  
On the local compressibility effect in spiral groove bearings and sealing systems 8292  
Pressure distribution in externally pressurized gas lubricated journal bearings with two rows of orifices 9995
- Conti, R.  
Inviscid reacting flow near a stagnation point 7117  
Time-optimal solution of a linear evolution equation in Banach spaces 9260
- Conticelli, V. M.  
*See* Kao, G. C. 6993
- Contini, R.  
*See* Drillis, R. 2983
- Contopoulos, G.  
Characteristics of invariant curves of plane orbits 7356
- Conversy, F.  
*See* Courbon, J. 4081
- Convery, E.  
Velocity of torsional waves in metals stressed statically into the plastic range 967
- Conway, H. D.  
The shrink fit of a flexible sleeve on a shaft 2315  
Further studies on the elastic stability of curved beams 4099  
Deflections of uniformly loaded circular plates with combinations of clamped, simply supported and free boundary conditions 5931
- Conway, J. B.  
Numerical methods for creep and rupture analyses 1595  
Stress-rupture parameters: Origin, calculation and use 5182

- Cook, A. M.  
Wind-tunnel investigation of the low-speed high-lift aerodynamics of a one-fifth scale variable-sweep supersonic transport 6483  
Large-scale wind-tunnel investigation to improve the low-speed longitudinal stability at high lift of a supersonic transport with variable-sweep wings 7343  
*See also* Rolls, L. S. 9761
- Cook, J.  
The elastic constants of an isotropic matrix reinforced with imperfectly oriented fibers 3129
- Cook, R. D.  
Strain resultants in certain finite elements 9224
- Cooke, J. C.  
The laminar boundary layer on an inclined cone 1122  
Leading edge effects on caret wings 1881
- Cooke, W. L.  
*See* Woolcott, R. G. 3878
- Cooley, D. A.  
Transplantation of human heart (16mm film) 4815
- Coombe, T. W.  
*See* Harpur, N. F. 9591
- Coon, M. D.  
Radial expansion in plates composed of ideal Coulomb material 151
- Cooper, G. J.  
Interpolation and quadrature methods for ordinary differential equations 10  
A note on the propagation of plane waves in elastic and plastic solids 957
- Cooper, J. N.  
Some problems of attack and defense 3013
- Cooper, P. A.  
Effect of shallow meridional curvature on the vibration of nearly cylindrical shells 6841
- Cooper, R. G.  
Velocity profiles and pumping capacities for turbine type impellers 1917
- Cooper, T. E.  
*See* Trezek, G. J. 5734
- Cooper, W. E.  
Design criteria for high-pressure high-temperature bolting 7914
- Coppens, A. B.  
Parameter of nonlinearity in fluids: Part 3, Values of sound velocity in liquid metals 4690
- Corey, A. T.  
*See* Laliberte, G. E. 4739
- Coriell, S. R.  
*See* Jackson, J. L. 6385  
*See* Simmons, J. A. 9834
- Corke, H. E.  
Pressure measurements in subcritical pure superfluid helium flow 1929
- Cornelius, K. T.  
A study of the performance of an optimum shock mount 5102
- Cornell, C. A.  
*See* Ayer, F. N. 318
- Corrigan, T. E.  
Frequency response for  $N$  stirred tanks with recycle 49
- Corrsin, S.  
Effect of passive chemical reaction on turbulent dispersion 2679
- Corsiglia, V. R.  
Large-scale tests of an airplane model with a double-delta wing, including longitudinal and lateral characteristics and ground effects 9027
- Cortesini, R.  
Artificial heart: Projects and experiments 3894
- Corum, J. M.  
Mortar models of prestressed concrete reactor vessels 9576
- Costello, F. A.  
Limits of validity of RMS approximation for satellite-temperature variances 8076
- Costello, G. A.  
*See* Dewey, B. R. 2125
- Costello, R. G.  
*See* Pellett, D. A. 2391
- Cotterell, B.  
On the behavior of notched struts 5039
- Cottis, M. G.  
On the dynamic response of an orthotropic finite cylindrical shell to an arbitrary pressure field 1675
- Cotton, K. C.  
Flow measurement symposium 1175
- Cottrell, C. L. M.  
Practical use of  $K_{Ic}$  and its variation by steel manufacture and treatment 7834
- Coull, A.  
Analysis of cantilever plates by the line-solution technique 3167  
Design of connecting beams in coupled shear wall structures 7002
- Coulomb, R.  
Water level and distribution of discharge along a side weir in a channel 7046
- Counselman, C. C., III  
Asymptotic stability and generalized forces in periodic systems 72
- Counts, J.  
*See* Chicurel, R. 3218
- Coupland, J. R.  
A method of resolving streaming and diffuse components of gas flow 1860
- Coupry, G.  
On the use of an aircraft as an instrument for measuring the statistical distribution of the level-crossings of turbulence 464
- Courbon, J.  
Buckling of arches 2387  
The influence of linear creep on the equilibrium of statically indeterminate isostatic prestressed concrete systems 2536  
Hooped rubber bearings for highway structures 4081
- Courtell, R.  
*See* Barquins, M. 3868
- Courtney, A. W.  
*See* Fairfax, J. P. 2210
- Courtney, W. G.  
Condensation during heterogeneous combustion 3708
- Cousin, S. B.  
*See* Pinkus, O. 6298
- Coutanceau, M.  
Uniform motion of a sphere along the axis of a cylinder containing a viscous liquid 4785  
*See also* Bourot, J.-M. 7948  
Bourot, J.-M. 8754  
Bourot, J.-M. 8755
- Coutts, J. A.  
*See* Williamson, J. L. 9542
- Couzens, M. L.  
*See* Plowman, J. M. 128
- Covali, S.  
*See* Sesan, A. 3389
- Cowie, A.  
The kinematics of contacting surfaces 5258
- Cowin, S. C.  
The characteristic length of a polar fluid 6221
- Cowley, M. D.  
The interfacial stability of a ferromagnetic fluid 3765
- Cowling, P. W.  
Optimization of a thermoelectric heat pump through cascading 4495
- Cowper, G. R.  
Formulation of a new triangular plate bending element 4068  
On the accuracy of Timoshenko's beam theory 7662
- Cowperthwaite, M.  
Explicit solutions for steady- and unsteady-state propagation of reactive shocks at constant velocity 3523  
Properties of some Hugoniot curves associated with shock instability 7106
- Cox, J. E.  
*See* Rundell, H. A. 2773
- Cox, R. G.  
Effect of finite boundaries on the Stokes resistance of an arbitrary particle: Part 3, Translation and rotation 687  
*See also* Sonshine, R. M. 2607
- Cox, R. H.  
Wave propagation through a Newtonian fluid contained within a thick-walled, viscoelastic tube 5732
- Craboli, J.  
*See* Scagnetti, M. 7303
- Crafoord, R. J.  
Bendability of sheet metal 2460
- Craggs, A.  
The response of a simply supported plate to transient forces: Part 1, The effect of  $N$ -waves at normal incidence 222
- Craggs, J. W.  
*See* Cooper, G. J. 957

- Crago, W. A.  
Problems associated with the use of skirts on hovercraft 9029
- Craileanu, D.  
Application of the method of initial parameters to the study of buckling of bars under torsion 2384
- Craig, J. I.  
See Horton, W. H. 6789
- Craig, R. R., Jr.  
Coupling of substructures for dynamic analyses 5841  
See also Chang, T.-C. 9415
- Craik, A. D. D.  
Wind-generated waves in contaminated liquid films 472  
A note on the static stability of an elastico-viscous fluid 4313  
The stability of free-surface flows with viscosity stratification 5426  
Resonant gravity-wave interactions in a shear flow 6331
- Crain, B., Jr.  
See Owahdi, A. 9816
- Craine, R. E.  
Spherically symmetric problem in finite thermo-elastostatics 2929
- Cramer, H. E.  
Turbulent transfer processes for quasi-homogeneous flows within the atmospheric surface layer 7430
- Cramer, R. L.  
See Dowd, P. J. 6591
- Crandall, S. H.  
On the rattling of windows by sonic booms 2437  
Dynamics of mechanical and electromechanical systems 8387
- Crane, D. F.  
See Lessing, H. C. 5767
- Crane, G. E.  
See Concus, P. 9781
- Crane, H. L.  
Effects of reduced airspeed for landing approach on flying qualities of a large jet transport equipped with powered lift 4621
- Crapper, G. D.  
The decay of free motion of a floating body: Force coefficients at large complex frequencies 2720
- Crause, E.  
See Causse, R. 8155
- Craven, C. E.  
See Brewer, E. B. 7963
- Crawford, T. S.  
See Houghton, J. E. 7450
- Crawley, J. C. W.  
An analog computer for calculating blood perfusion rates 792
- Cremer, L.  
The self-excited vibrations of organ pipes 2915
- Cremers, C. J.  
Temperatures in a plasmajet 2064
- Crescentini, A. A.  
Effects of inelastic collisions in low-temperature, diffusion-dominated discharges 7326
- Cresswell, M. W.  
See Schetzina, J. F. 3375
- Cretin, M.  
On the stability of a cylindrical plasma self-gravitating about a relative equilibrium 5577
- Cretu, I.  
The determination of the well deterioration factor in the case of heterogeneous fluid flowing 2958
- Crews, J. H., Jr.  
Elastoplastic stress-strain behavior at notch roots in sheet specimens under constant-amplitude loading 8431
- Crighton, D. G.  
Sound generation by turbulent two-phase flow 9053
- Criminale, W. O., Jr.  
Interaction of the laminar boundary layer with free-stream turbulence 6289  
See also Betchov, R. 8758
- Crimmins, P. P.  
See Gerberich, W. W. 6927
- Crisan-Zverca, M.  
On a program for a pre-established strategy to be applied to Gauss' method for the solution of systems of linear equations 3017
- Crisuolo, E. L.  
See Youshaw, R. A. 1028
- Crisman, W. C.  
See Bert, C. W. 9394
- Cristescu, C.  
See Demetrescu, G. 6492
- Crocco, L.  
See Zinn, B. T. 8784  
Zinn, B. T. 8788
- Crochet, M. J.  
Small motions superposed on large static deformations in porous media 3842
- Crocker, A. G.  
See Tucker, M. O. 5874
- Crocker, M. J.  
Instrumentation requirements for measurement of sonic boom and blast waves: A theoretical study 2924
- Croll, J. G. A.  
Edge effects in hyperbolic paraboloid shells 7698  
Convergence of hyper finite-difference solutions 9352
- Cronin, D. L.  
Response spectra for sweeping sinusoidal excitations 5984
- Crosbie, A. L.  
Transient heating or cooling of a plate by combined convection and radiation 3658  
A simplified method for solving transient heat-conduction problems with nonlinear boundary conditions 5481
- Crosby, D. P.  
Nondestructive testing of fireclay nozzles by sonic technique 3385
- Crosier, C. M.  
Charts for the analysis of rectangular beams and slabs 9574
- Cross, E. R.  
See Luh, J. Y. S. 4897
- Cross, R. C.  
Hydromagnetic waves in a nonuniform hydrogen plasma 9868
- Cross, R. H.  
Tide gage frequency response 6563
- Cross, T. S.  
See Melton, N. M. 256
- Crossley, T. R.  
Synthesis of aircraft modal control systems 3062
- Crouse, J. E.  
A computer program for composing compressor blading from simulated circular-arc elements on conical surfaces 9794
- Crouzet-Pascal, J.  
Effect of embedding medium viscoelasticity on the transient response to plane waves of arbitrarily thick circular cylinders 6890
- Crow, I. G.  
High-vacuum valve for shock-tube application 4473
- Crow, S.  
Turbulent Rayleigh shear flow 1132
- Crowley, J. M.  
Lateral instability of a stream of charged droplets 1381
- Cruse, T. A.  
A direct formulation and numerical solution of the general transient elastodynamic problem: Part 2 7782
- Cruz, J. B., Jr.  
See Perkins, W. R. 7527
- Csanady, G. T.  
Motions in a model Great Lake due to a suddenly imposed wind 6558
- Csoka, J.  
Testing a hydraulic control element of PI-character 52
- Csoma, J.  
Determination of bed-load discharge carried by water courses 372
- Csonka, P.  
Edge forces of horseshoe shells 1636  
Boundary conditions of stress functions on the free boundaries of panels and shells 4085  
Particular solutions to the homogeneous differential equation of spherical shells 5010
- Cucuz, N.  
On the dynamic behavior of a bi-axial freight car 9436
- Cudney, G. R.  
Stress histories of highway bridges 5241
- Culick, F. E. C.  
Some nonacoustic instabilities in rocket chambers are acoustic 2011  
A review of calculations for unsteady burning of a solid propellant 6440
- Culkowski, P. M.  
See Reismann, H. 2429



- Cullimore, M. S. G.  
See Spiers, R. 7837
- Cullum, C. D.  
Equivalence relations for the classification and solution of optimal control problems 1514  
See also Canon, M. 1527
- Cullum, J.  
A maximum principle for optimal control problems in which the phase space constraint set is closed  
Perturbations of optimal control problems 60 836
- Culver, C. G.  
Elastic stability of tapered beam-columns 3198
- Culver, L. E.  
See Mukherjee, B. 7832
- Culver, R.  
A preliminary assessment of the use of quartz thermometers for the determination of pump efficiency in situ 527
- Cummings, A.  
See Utley, W. A. 7374
- Cummings, W. C.  
Self-noise of a deep submersible in a bioacoustic investigation off Catalina Island, California 8177
- Cummings, W. M.  
See Day, M. F. 4956
- Cunniff, P. F.  
Structural interaction effects on shock spectra 237
- Cunningham, D. M.  
See Okada, A. 6128
- Cunningham, R. A.  
Analysis of downhole measurements of drilling string forces and motions 1669
- Cunningham, R. E.  
Experiments on rotating externally pressurized, air journal bearings: Part 1, Load capacity and stiffness  
Experiments on rotating externally pressurized air journal bearings: Part 2, Attitude angle and air flow  
Experiments on the steady-state characteristics of herringbone-grooved air-lubricated journal bearing 7457 7458 9152  
See also Fleming, D. P. 3881
- Curd, H. N.  
See Hays, D. F. 8042
- Curtet, R.  
Study of a vertical downward mixed water and air flow: Flow and concentration conditions 1819  
See also Cluis, D. 7082
- Curtis, G. J.  
Acoustic feedback as a model investigation tool 9922
- Curtis, T. J.  
See Forrester, K. 2542
- Curwen, P. W.  
An investigation of the performance of gas-bearing machinery subjected to low-frequency vibration and shock 8290
- Curzon, P. L. V.  
See Wittrick, W. H. 6781
- Cushing, B. S.  
Turbulent mass transfer and rates of combustion in confined, turbulent flames: Part 2 4567
- Cygan, D. A.  
A transcendental approximation for natural convection at small Prandtl numbers 7240
- Cylkowski, Z.  
On the evaluation of functions on digital computers 3935
- Cyras, A.  
See Borkauskas, A. 7680
- Czarnecki, K. R.  
Roughness drag due to two-dimensional fabrication-type surface roughness on an ogive cylinder from force tests at transonic speeds 7163  
See also Monta, W. J. 2699
- Czarnota-Bojarski, R. F.  
Displacement equations for a thin, bending-resistant prestressed shell  
Predeformations of shells: Solution for the spherical shell 3175 5009
- Czekajewski, J. A.  
A real-time method for fast determination of the fundamental frequency 4156
- Czerny, Gy.  
A new method of soil stabilization: Supersilic 9490
- Czerski, Z.  
The mechanism of bond action in pretensioned concrete 6175
- Czuchry, A. J.  
Regularization in optimal trajectory problems 6505
- Czyryca, E. J.  
See Gross, M. R. 6958
- D**
- Dabora, E. K.  
See Ragland, K. W. 5620
- Dabrowski, K.  
Computation of crack width in reinforced concrete beams due to bending 6173
- Dae Han, C.  
Axial dispersion in fluid flow through porous plates in parallel and through a porous tube 6553
- Daehler, M.  
Coordinated measurements of plasma density and cooperative light scattering in a theta-pinch plasma 8122
- Dafermos, C. M.  
On the existence and the asymptotic stability of solutions to the equations of linear thermoelasticity 9086
- Dahl, W.  
Brittle fracture behavior of plain carbon and low-alloy structural steels observed in notch impact-bending and tensile tests as a function of grain size, temperature, preliminary strain hardening and aging 1720
- Dahler, J. S.  
See Klein, W. M. 5459
- Dahlin, E. B.  
On-line identification of process dynamics 5835
- Dahlquist, G.  
Comparison of the method of averages with the method of least squares 8333
- Dahm, A. J.  
Study of the Josephson plasma resonance 2047
- Dailey, C. L.  
Investigation of plasma rotation in a pulsed inductive accelerator 8137
- Dalela, S.  
Influence of some factors on resistance to deformation and power consumption in hot flat rolling of structural steel 994
- Dallam, L. N.  
High strength bolt shear connectors: Pushout tests 6204
- Dallos, P.  
Distribution pattern of cochlear harmonics 6596  
See also Sweetman, R. H. 6598
- Dally, J. W.  
A photoelastic analysis of propagation of Rayleigh waves past a step change in elevation 9532  
See also Brillhart, L. V. 1708
- Dalton, C.  
Influence of secondary flow on drag force 4335
- Daly, B. J.  
Numerical study of density-current surges 367
- Dalzell, J. F.  
See Chu, W. H. 3864  
Kana, D. D. 8557
- Damian, K.  
An electrolytic tank as analog computer for two-part network problems 7521
- Damkevala, R. J.  
Technique for studying interactions between a body moving at supersonic speeds and blast waves approaching obliquely 5339
- Damon, R. W.  
See Smith, A. B. 1367
- Damoulakis, J. N.  
See Miele, A. 8815
- Danaford, V. E. J.  
See Street, P. J. 2135
- Danby, J. M.  
Motion of a satellite of a very oblate planet 7571
- Danek, O.  
Forced vibrations for linear systems 164
- Dange, M. G.  
See Rao, K. R. 4859

- Dang Van Mien, H.  
A study of digital regulation methods 9244  
A study of digital control methods 9245
- Daniel, I. M.  
See Marloff, R. H. 8648
- Danila, N.  
Exergy analysis of regenerative cycles of steam power stations 5454
- Danilov, V. I.  
Method of calculating shells for flexure and creep stability 9360
- Danilovskaia, V. I.  
See Indenbom, V. L. 5855
- Danilowicz, R. L.  
Point defect calculations in tungsten 4941
- Dannenberg, R. E.  
Microsecond response system for measuring shock arrival by changes in stream electrical impedance in a shock tube 2744  
Exploding wire initiation and electrical operation of a 40-kV system for arc-heated drivers up to 10-feet long 8145
- D'Annessa, A. T.  
Effects of natural aging on fracture characteristics of X7000-series aluminum weldments 4238
- Dantu, P.  
Statistical study of intergranular forces in a powdered media 3278  
Experimental study of a granular medium compressed between two vertical and parallel planes 7806
- Dantzig, G. B.  
Application of generalized linear programming to control theory 840
- Danyluk, H. T.  
Elastic-plastic flow through a converging conical channel 9503  
See also Haddow, J. B. 4965
- D'Appolonia, D. J.  
Settlement of spread footings on sand 7808  
Sand compaction with vibratory rollers 8580
- D'Appolonia, E.  
See D'Appolonia, D. J. 7808  
D'Appolonia, D. J. 8580
- Darbari, G. S.  
Ultrasonic attenuation in carbon steel and stainless steel at elevated temperatures 7383
- Darby, J. F. G.  
Rectilinear motion of instrument pointers 1788
- Darby, R. A.  
See Deferrari, H. A. 1691
- Darcy, V. J.  
An application of an analog computer to solve the two-point boundary-value problem for a fourth-order optimal control problem 837
- Dareing, E. W.  
See Huang, T. 6833
- Darevskii, V. M.  
Torsional stability of a long cylindrical shell 4108
- Darinskii, B. M.  
Influence of the form of the hysteresis loop on the stationary regime of oscillation 1684  
The influence of the form of a hysteresis loop on a stationary vibrations region of a system with one degree of freedom 2417
- Darkow, G. L.  
Diurnal oscillations of the tropospheric wind field above a low-level jet 5696
- Das, B.  
Stresses due to a nucleus of thermoelastic strain in an infinite elastic solid with two spherical elastic inclusions of different materials 9080  
Stresses due to a nucleus of thermoelastic strain in an infinite elastic solid with two rigid circular inserts 9944
- Das, B. N.  
See Bhattacharya, J. 1579
- Das, B. R.  
Thermal stresses in a long cylinder containing a penny-shaped crack 7389
- Das, C. N.  
Heat transfer in dilute-phase fluidized bed 5674
- Das, M. K.  
The relation between the static and the dynamic cutting of metals 2468
- Das, N. C.  
A note on disturbances in an inhomogeneous elastic bar acted upon by a magnetic field 225
- Das, P. C.  
See Panda, B. B. 3948
- Das, P. K.  
Rapid methods of fatigue testing 1010
- Das, S. C.  
A quantitative study of water hammer technique 6924  
Axisymmetric thermal stresses in a spheroidal shell of arbitrary thickness 9078  
See also Krishna Rao, K. G. 205
- Das, S. P.  
Unsteady flow of two immiscible viscous liquids between two concentric circular arcs 7085
- Das, T. R.  
Prediction of entropy of vaporization of inorganic gases 9800
- Dasarathy, B. V.  
Study of a class of nonlinear systems reducible to equivalent linear systems 9  
Class of nonlinear third-order systems reducible to equivalent linear systems 80  
A new approach to the study of nonlinear nonautonomous systems 3908  
On the response of time dependent systems reducible to equivalent time invariant systems 3909  
On the use of certain transformation techniques in the study of nonlinear systems 3910  
Study of mechanical systems subjected to combined deterministic and random excitation 5106
- On the study of a third-order mechanical oscillator 6808  
On a class of time-dependent systems with periodic solutions 7525
- Dascher, A.  
See Langer, G. 4771
- Das Gupta, A.  
Results of research on drains through porous media 3837
- Das Gupta, D. K.  
See Paul, R. J. A. 689
- Das Gupta, N. C.  
On the application of combustion theory in ignition delay experiment 3723  
An experimental technique for high temperature combustion research 3735
- Das Gupta, S.  
See Naidu, P. R. 3039  
Bandyopadhyay, K. K. 3453
- da Silva, G.  
See Mercier, J. 9095
- Das Talukder, N. K.  
Limit torque for simply-connected nonhomogeneous prismatic bars 1614
- Dat, J.  
Experimental study of the attachment of a plane jet to a wall 1119
- Dat, R.  
Boundary layer effects on flat panel flutter at low supersonic speeds 1318
- Datsko, J.  
Thermal aspects of machinability 4215
- Datta, J.  
See Nandi, S. B. 8326
- Datta, S. K.  
Axially symmetric waves in an elastic solid of revolution 6881
- Dau, K.  
Two probes for the measurement of the complete velocity vector in subsonic flow 8871
- Daubert, A.  
A few applications of mathematical models to the study of unsteady flows in a ramified river or canal network 2590  
Some aspects of near-horizontal two-dimensional unsteady flow and their application to estuaries 3455
- Daudet, F.  
A study of evaporation or condensation on the surface of a body from energy balance 8930
- Dauer, F. W.  
Impact printing 2435
- Daug, H.  
See El-Badrawy, R. 7399
- Dauphin, P.  
See Sfindesco, D. 1050
- Dave, P. C.  
Analysis of pin-wheel frames 1760
- Davenport, A. G.  
Gust loading factors 7902
- Davenport, R.  
See Dickson, G. 4042
- Davenport, R. A.  
Flowfield around moving gas clouds in the upper atmosphere 2645

- Davern, W. A.  
Impedance chart for designing sound absorber systems 4684
- Davey, A.  
See Gaster, M. 3505
- David, D.  
See Komornik, A. 8578
- David, M. M.  
See Maahs, H. G. 2785
- Davidge, R. W.  
Internal strain energy and the strength of brittle materials 3330  
The effective surface energy of brittle materials 5185
- Davidovici, V. E.  
Linear variations in tall buildings 7901
- Davids, N.  
See Koenig, H. A. 1695
- Davidson, R. C.  
General weak turbulence theory of resonant four-wave processes 9729
- Davidson, T. E.  
See Eisenstadt, R. 8633
- Davies, C.  
Steel-concrete composite beams with flexible connectors: A survey of research 2532
- Davies, C. M.  
The structure of the magnetopause 8125
- Davies, C. N.  
The effect of a cross wind when sampling dust particles through an orifice in the base of a horizontal cylinder 3834  
The entry of aerosols into sampling tubes and head 8216
- Davies, D. E.  
An application of Flax's variational principle to lifting-surface theory 8013
- Davies, D. V.  
Some of the physical properties of normal and pathological synovial fluids 3893
- Davies, H. G.  
Aerodynamic sound generation in a pipe 4659
- Davies, J. D.  
The analysis of cooling tower ring beams 125  
Stress distribution in splitting tests 6127
- Davies, R.  
See Austin, E. R. 8610
- Davies, T.  
An extension of Manolescu's classification of planar kinematic chains and mechanisms of mobility  $M \geq 1$ , using graph theory 8710
- Davies, W. D. T.  
Using the binary maximum length sequence for the identification of system dynamics 4869
- Davies, W. R.  
Heat transfer and transition to turbulence in the shock-induced boundary layer on a semi-infinite flat plate 9674
- Davis, C. M., Jr.  
See Stallard, J. M. 7213
- Davis, D.  
See Sciammarella, C. A. 5204
- Davis, D. R.  
See Blitzler, L. 4645
- Davis, E. H.  
The use of elastic theory for settlement prediction under three-dimensional conditions 251  
See also Poulos, H. G. 7807
- Davis, H. J.  
Impact testing with a four-inch air gun and lead targets 6151
- Davis, J. B.  
Experimental investigation of transient thermal stresses in a solid sphere 4709
- Davis, L. A.  
See Gordon, R. B. 3262
- Davis, M. S.  
Programming systems for analytical developments on computers 27
- Davis, R. E.  
On the high Reynolds number flow over a wavy boundary 9648
- Davis, R. T.  
See Alzheimer, W. E. 7676
- Davis, S.  
Crash considerations in the design of the New York State Safety Sedan 5741
- Davis, S. H.  
Convection in a box: On the dependence of preferred wave-number upon the Rayleigh number at finite amplitude 1972  
Effects of surface curvature and property variation on cellular convection 6401
- Davison, E. J.  
Some sufficient conditions for the stability of a linear time-varying system 7539
- Davison, L. D.  
Adaptive linear filtering when signal distributions are unknown 4894
- Davydov, A. I.  
Effect of the angle of contact and the angle of the working rotor on the magnitude of the thrust developed by a centrifugal fan 8869
- Davydova, E. G.  
See Rzhanitsyn, A. R. 8505
- Dawidl, W.  
Wear properties of tungsten carbide and aluminium oxide sintered materials 8280
- Dawson, B.  
Coupled bending-bending vibrations of pretwisted cantilever blading treated by the Rayleigh-Ritz energy method 7765  
Modal curves of pretwisted beams of rectangular cross section 8540
- Dawson, E. F.  
See Lederman, S. 2877
- Dawson, J. M.  
See Winsor, N. 5571
- Dawson, V. C. D.  
Investigation of the relaxation of residual stresses in autofrettaged cylinders 8707
- Day, E. E.  
See Kirkpatrick, G. S. 9166
- Day, M. F.  
Creep of a carbon-manganese steel under cyclic stress and temperature conditions 4956
- Daybelge, U.  
See Kruger, C. H. 5595
- Daznacheyeva, V. D.  
See Gruza, G. V. 9987
- De, G. C.  
See Dubey, G. K. 3940
- De, T. K.  
Love-waves in nonhomogeneous media 3266
- De, Y.  
Torsion of a composite nonhomogeneous circular cylinder 7614
- Deak, A. L.  
See Fowlkes, C. W. 3366
- Dean, D. L.  
Analysis of ribbed plates 7714  
Field solutions for two-dimensional frameworks 7891
- de Arantes e Oliveira, E. R.  
Theoretical foundations of the finite element method 7609
- Deardorff, J. W.  
Examination of numerically calculated heat fluxes for evidence of a supercritical transition 1220  
See also Businger, J. A. 1939  
Willis, G. E. 4523
- Dearing, J. D.  
Heat-transfer and pressure distributions inside the hinge-line gap of a wedge-flap combination at Mach number 10.4 6325
- Deas, K. W.  
Dynamic stresses in free-pinned beams during impact with a stop 330
- Deaton, J. W.  
See Bouchillon, C. W. 5735
- Deb, P. C.  
Studies on inhibition characteristics of corn steep liquor and black sulphite liquor on corrosion of mild steel in acid media 7839
- Debb, A. D.  
Nondestructive testing of tubes 1031
- Debeauvais, F.  
Anomalies of flow birefringence shown by dilute solutions of several polymers 5451
- de Boer, P. C. T.  
Theory of flat-plate ion-density probe 4609
- De Bray, B. G.  
Some investigations into the spanwise nonuniformity of nominally two-dimensional incompressible boundary layers downstream of gauze screens 7200

- de Buen, O.  
Plastic design of rigid multistory frames 317
- de Carfort, F.  
See Foulard, C. 6652
- Dechaene, R.  
Principles of the moire method and their application to the measurement of strains 291
- Decken, C. B. v. d.  
See Bedenig, D. 9860
- Decker, J. P.  
An exploratory study of parallel-stage separation of reusable launch vehicles 1343  
Aerodynamic interference effects caused by parallel-staged simple aerodynamic configurations at Mach numbers of 3 and 6 8828
- Decker, O.  
Dynamic seal technology: Trends and developments: Part 3, Centrifugal and dynamic seals 1781
- Decker, B. E. L.  
Effect of combustion time on the appearance of vibrating diffusion flames 2827  
Transient effects in the discharge of compressed air from a cylinder through an orifice 5350  
An investigation into the stability of enclosed laminar diffusion flames 7299
- Dedkov, V. F.  
On the coefficients  $m(\epsilon)$  and  $\beta(\mu_0)$  for calculation of deformation modulus of clays 4188
- DeDonato, O.  
Dynamic uniqueness and stability conditions for elastic-plastic structures with associated flow laws 7646  
Iterative solution of the incremental problem for elastic-plastic structures with associated flow laws 9330
- Deekshatulu, B. L.  
See Sarma, V. V. S. 56  
Sarma, V. V. S. 3981  
Gururaja, H. V. 4905  
Sarma, V. V. S. 5820
- De Farias, F. N.  
See Sparrow, E. M. 3664
- Deferrari, H. A.  
Vibrational displacement and mode-shape measurement by a laser interferometer 1691
- Deffet, L.  
Methods of metal cladding with use of explosive 6092
- de Franchis, F.  
On the ideal fluid of reference of a certain general type, with respect to which the relative kinetic energy of a given material system is minimal 1555
- Degenhart, T.  
See Hering, R. G. 8077
- DeGroot, J. S.  
Plasma response to the sudden application of an electric field 1296
- Degtyarev, V. G.  
Stability of circular satellite orbits in the Earth's normal gravitational field with allowance for the dipole magnetic field 4635
- Degtyarev, G. L.  
On optimal control of unidimensional processes with distributed parameters 5832
- de Halleux, B.  
See de Strycker, R. 1597
- DeHoff, P. H.  
Note on finite elastic analysis of an infinite plate with elliptical hole 4942
- Dehousse, N. M.  
Plane orthotropic stiffeners: Calculation of a sluice gate 1645  
Apparatus for determining the friction coefficients of prestressed cables on curved sections 2177
- Deich, A. M.  
See Aleksandrovskii, N. M. 8344
- Deich, M. E.  
Investigation of supersonic moving blade cascades in a steam operated wind tunnel 4438  
Experimental study of the velocity of sound in wet steam 4695  
Equations of motion of two-phase media 9642
- Deily, F. H.  
Downhole measurements of drill string forces and motions 8606
- De Iorio, A.  
Plastic instability in shells of revolution subjected to internal pressure 8518
- Deissler, R. G.  
Nonlinear decay of a disturbance in an unbounded viscous fluid 2712  
Effects of combined two-dimensional shear and normal strain on weak locally homogeneous turbulence and heat transfer 9732  
Direction of maximum turbulent vorticity in a shear flow 9737
- de Jongh, M. J.  
A calculation method for natural frequencies and vibration modes of solid wing models of low aspect ratio 202
- Dekhtyar, A. S.  
See Varvak, M. Sh. 6998
- Delalande, C.  
Experimental proof of a change in sign of transversal flow in a three-dimensional boundary layer 7135
- Delaney, F. C.  
See Feiveson, A. H. 21
- Delaney, L. J.  
See Bartlett, R. W. 2609
- deLeeuw, J. H.  
See Dukowicz, J. K. 5574
- DeLeiris, H.  
See Mencarelli, E. 9528
- Delesques, R.  
See Valbert, G. 3400
- Deleys, N. J.  
See McHenry, R. R. 5794
- Delhaye, J. M.  
Spatial and statistical mean equations for two-phase flow 385
- de Loringhoven, L.  
Crane girders: Loadings and stress conditions 3163
- Delorme, J. F.  
Calorimetric study of the energy dissipated from a solid subjected to fatigue cycles 8899
- Delsasso, L. P.  
See Knudsen, V. O. 1359
- De Lustrac, J.  
Percussion response of immersed spheres 6522
- de Mestre, N. J.  
Corner conditions for weak shock diffraction by a wedge 407  
Nonlinear weak shock diffraction 7981
- Demetrescu, G.  
Dynamics of stellar elements 6492
- Demetriades, A.  
Turbulence measurements in an axisymmetric compressible wake 5402  
Turbulent front structure of an axisymmetric compressible wake 6307
- Demidov, Yu. S.  
See Shalnev, K. K. 2611  
Shalnev, K. K. 4365
- Demir, H. H.  
Long cylindrical shells subjected to a uniform pressure and a ring force 4084
- de Montardy, A.  
Electrical performance of a duct with segmented electrodes under various conditions 3795
- Dempster, M. A. H.  
On stochastic programming: Part 1, Static linear programming under risk 4842
- Demyanov, V. F.  
Minimization of functionals in normed spaces 800
- Denardo, B. P.  
Projectile shape effects on hypervelocity impact craters in aluminum 2443
- Denes, L.  
See Szamosvolgyi, O. 3417
- deNevers, N.  
Bubble-driven fluid circulations 698
- Denisov, Yu. N.  
Investigation of the hydrodynamics and effectiveness of a centrifugal ejector with multistage rotors 4445
- Denman, E. D.  
Coupled mode theory 4160
- Denn, M. M.  
The optimality of an easily implementable feedback control system: An inverse problem in optimal control theory 1507
- Dennar, E. A.  
An evaluation of the differential approximation for spherically symmetric radiative transfer 8917
- Dennis, S. C. R.  
Steady laminar forced convection from a circular cylinder at low Reynolds numbers 5486  
See also Naylor, D. 3014
- Dennison, A. C.  
See Chronowicz, A. 6174



- Dennison, A. J.  
See Magiros, D. G. 7357
- Denoh, S.  
See Tanaka, T. 5191
- Denzel, D. L.  
Experimental study of diagonal conducting wall generators using solid propellants 3794
- Depew, C. A.  
See Shannon, R. L. 3659
- Deprez, J.  
See Dehousse, N. M. 1645
- Deprit, A.  
Numerical integration of an orbit and its concomitant variations by recurrent power series 1326  
Poincaré's continuation by computers 5777
- Der, T. J.  
A model study of the buckling behavior of hyperbolic shells 5970
- Der, Z. A.  
Surface wave components in microseisms 8234
- Deresiewicz, H.  
Stresses in beams having holes of arbitrary shape 7605
- Derevyanko, N. F.  
Measurement of gas flow turbulence by optical method 4424  
Optical measurement of turbulence 9741
- Dergacheva, E. I.  
Flywheel stabilization of a rigid body subjected to constantly applied perturbations 2271
- Derkach, V. F.  
Engineering method of calculating thin plates on an elastic half-space 9351
- De Rocker, D. E.  
See Renzo, P. C. 1772
- Derski, W.  
On the problems of the theory of consolidation 4189  
Some contributions to the theory of flow of fluids through porous deformable media 5672
- Deryagin, B. V.  
See Yalamov, Yu. I. 1858
- Deryagin, G. A.  
Use of rapid methods in determining the fatigue strength of D16T aluminum alloy 1026
- Desai, M. D.  
Foundation investigation by vane shear 6056  
Correlation of dynamic cone and standard penetration tests 6073
- de Saint-Martin, J. M.  
See Coulomb, R. 7046
- de Saint Martin, L.  
See Pariel, J.-M. 9842
- De Santis, D.  
MAGIC: An automated general purpose system for structural analysis: Vol. 3, Programmer's manual 9214
- Desayi, P.  
See Sundara Raja Iyengar, K. T. 3374
- Deshpande, N. V.  
See Lessen, M. 2056  
Lessen, M. 5579
- DeSilva, C. N.  
Nonlinear constitutive equations for directed viscoelastic materials with memory 8421
- de Simone, J. C.  
See Klein, G. 4613
- Desmares, P.  
See Korpel, A. 8658
- Desmond, R. M.  
Prandtl number and thermal conductivity of steam at one atmosphere 7211
- Desoer, C. A.  
The minimal realization of a non-anticipative impulse response matrix 4870  
See also Chen, C.-T. 3031  
Chen, C.-T. 8378
- DeSoto, S.  
Coupled radiation, conduction and convection in entrance region flow 536
- Desperat, T.  
Best strategy algorithm for solving linear equations with a symmetric, positive definite matrix of special type 2994
- Desperat, T. W.  
See Arcisz, M. 1605
- Destenay, J.  
Examples of cavitation damage to concrete 5278
- de Strycker, R.  
Behavior of stretched members under tension 1597
- Destuynder, R.  
Control by flexible models in wind-tunnels of three-dimensional flutter calculations 2068
- de Sulima, T. H.  
See Blitzer, L. 4645
- Desvarreux, P.  
See Biarez, J. 6904
- Dethlefsen, R.  
Performance measurements on a pulsed vacuum arc thruster 3754
- Detinko, F. M.  
See Vysokoostrovskaya, E. A. 939
- Dettman, J. W.  
See Bragg, L. R. 3006
- Detwiler, D. P.  
Apparatus for the precision measurements of internal friction 2418
- de Vahl Davis, G.  
Laminar natural convection in an enclosed rectangular cavity 7238
- Devan, L.  
Approximate solution of the compressible laminar boundary-layer equations 2658
- Devanathan, C.  
See Bhatnagar, P. L. 7435
- Devaux, A.  
Decay of vibrations transmitted to structures by railway materials 4681
- Deverson, E. C.  
The performance of an airfoil in stationary and rotating cascades 6350
- Deveikis, W. D.  
See Monta, W. J. 2699
- Deverall, L. I.  
See Shannon, L. J. 8949
- Devereux, W. P.  
See Moskowitz, S. 1337
- de Veubeke, B. F.  
Natural strains and stresses for trapezoidal structures analysis 7869
- Devillers, M.  
Remarks on equations of equilibrium for powdery solids 5145
- Devletian, J. H.  
See Loper, C. R., Jr. 9610
- DeVost, V. F.  
Bidirectional shock and high-impact effects on shock transducers 241
- Devoto, R. S.  
Transport coefficients of partially ionized hydrogen 8130
- de Vries, G.  
Modification of the vibratory behavior of a mechanical structure by an adjusted reinjection of the responses 4140
- de Vries, M.  
Photometric counter for fluorescent tracers 373
- DeVries, M. F.  
Temperature distributions in drilling 2466
- Devyanin, E. A.  
The Lagrangian form of equations of inertial navigation 4638
- Dewey, B. R.  
Thermal buckling of nonhomogeneous plates 2125
- de Wilde, A. C.  
The efficiency of open flame combustion 1962
- de Wilde, G.  
The torsional behavior of ships with large hatch openings 4289
- de Wit, R.  
Thermodynamic force on a dislocation 2343
- Dewitte, M.  
Calculation of explosive characteristics by the Ruby method 4654
- deWolf, D. A.  
Saturation of irradiance fluctuations due to turbulent atmosphere 7438
- Dexter, H. B.  
See Zender, G. W. 1035
- Dhaliwal, R. S.  
Dynamical problems of thermoelasticity for cylindrical regions 4712  
The bending of symmetrically loaded circular plates of variable thickness under uniform compression 4998
- Dhanak, A. M.  
See Hassan, S. A. 4534
- Dhanju, K. S.  
See Kiusalaas, J. 1639

- Dhir, S. K.  
Stresses around two equal reinforced circular openings in a thin plate 7674
- Dhoopar, B. L.  
See Atkinson, C. P. 5752
- Diaconita, V.  
See Bors, C. I. 1604
- Diaconu, C.  
Altitude, as one of the basis criteria for organizing hydrometeorological networks in mountainous zones 714
- Diamantini, F.  
See Partel, G. 4576
- Diamond, J. J.  
Bibliography on the high temperature chemistry and physics of materials 9091
- Diana, G.  
See Massa, E. 74
- Dianov, D. B.  
Calculation of the hydrodynamic interaction of aerosol particles in a sound field under Oseen flow conditions 1378
- Diaz, M.  
See Marchi, E. 3237  
Zgrablich, G. 3238
- Dibaj, M.  
Response of earth dams to traveling seismic waves 7790
- Di Battista, J. D.  
Shock-wave pressure decay in polycarbonate targets impacted by cylindrical polycarbonate projectiles 1707
- Diboll, W. B., Jr.  
Suspension dynamics by computer simulation 4860
- Di Caprio, U.  
Application of the second method of Lyapunov to the stability of a synchronous machine connected to an infinite bus 39
- Dick, D. E.  
Measurement of nonlinearity in the arterial system of the dog by a new method 1444
- Dick, R. I.  
Evaluation of activated sludge thickening theories 6225
- Dickerson, J. R.  
See Caughey, T. K. 6868
- Dickey, R. R.  
See Lundell, J. H. 2001
- Dickey, R. W.  
Dynamic behavior of soap films 2401  
Dynamic deformation of axially symmetric elastic membranes 5990  
Torsion of the single span suspension bridge 7894
- Dickinson, R. E.  
Theory of planetary wave-zonal flow interaction 9985
- Dickinson, S. M.  
Vibration of box-type structures with flexible joints between constituent plates 943
- Dicks, J. B.  
See Powers, W. L. 1291  
Powers, W. L. 5565
- Dickson, G.  
The steady-state creep behavior of dental amalgam 4042
- DiCristina, V.  
See Bishop, W. M. 7284
- Diem, H. G.  
See Wazzan, A. R. 7249
- Diep, G. B.  
Aerodynamic and aerothermal study of yawed circular cylinders in supersonic flow 2622
- Diercks, K. J.  
Echoes from hollow aluminum spheres in water 673
- Diesperov, V. N.  
Damping of perturbations produced by a solid of revolution in a viscous heat-conducting supersonic gas flow 1831  
The second approximation in the asymptotic theory of sonic flow of a real gas past bodies of revolution 5319  
Second approximation in the theory of asymptotic damping of perturbations in supersonic flow of viscous heat-conducting gas 7975
- Diessel, H. G.  
Devices for the calibration of intracardiac microphones 8309
- Dietrich, L.  
Plastic yielding of axially-symmetric bars with nonsymmetric V-notch 2334
- Dietrich, M.  
A procedure for solving optimization problems by means of the Monte Carlo method 3018
- Dietz, A. G. H.  
Composite engineering laminates 9561
- Diez Roche, J. T.  
The peripheral jet theory 4623
- Di Federico, I.  
Heat transfer in heat-generating fluid with flat velocity profile and arbitrary fluid inlet and circumferential wall temperature distributions 9808
- Dijksman, E. A.  
Coordination of coupler-point positions and crank rotations in connection with Roberts' configuration 8719
- Diky, L. A.  
Calculation of the Rossby wave velocities in the Earth's atmosphere 468
- Dill, E. H.  
Photoviscoelasticity 5199
- Dillman, C. J.  
The mechanical energy transformations of pole vaulting with a fiberglass pole 3888
- Dillon, J. L.  
Data-reduction technique for determining rapidly rising heating rates to thermally thick walls 9810
- Dillon, O. W., Jr.  
Experimental data on small-plastic deformation waves in annealed aluminum 8574
- Dimel, E.  
The shearing protection in the steel concrete construction 2539
- Dimentberg, M. F.  
Subharmonic resonance in a system with a randomly varying natural frequency 951  
Vibrations of nonlinear system with one degree of freedom subjected to the action of a periodic force and change of eigenfrequency according to a random law 1664  
Determining the nonlinear damping characteristics of a system with one degree of freedom on the basis of tests during forced vibrations 3249  
On the problem of vibration of a system with a nonlinear characteristic acted upon by a random force 5108  
Generalized Euler-Savart theorem 9270
- Dimitrov, N.  
Theory of stability and of load capacity 4116
- Dimofte, Fl.  
See Constantinescu, V. N. 4791  
Constantinescu, V. N. 4792
- Dimopoulos, H. G.  
Velocity gradients at the wall for flow around a cylinder for Reynolds numbers between 60 and 360 3550
- Dinca, I.  
See Bitu, O. 728
- Din Chi, N.  
On a free boundary problem for a parabolic equation 1460
- Dinkevich, S. Z.  
Calculation of frames with flexible joints 326
- di Novi, R. A.  
Application of the pulse method to a specific heat and density-independent measurement of thermal conductivity: Extension of the method to very small specimens 1196
- Dionne, J. G. G.  
See Tardif, L. 3525
- Dipalo, A. J.  
Percentage increase in expected mean-time to failure for a system through burn-in testing 2191
- Di Pasquale, S.  
On the elastic problem of the non-homogeneous anisotropic reticulated body resting on a lattice 1591  
On the elastic problem of the orthotropic thick plate 3180
- Di Prima, R. C.  
Vector eigenfunction expansions for the growth of Taylor vortices in the flow between rotating cylinders 774
- Diprose, K. V.  
Self-adaptive control systems 3085
- Diringer, P.  
Interpolation, derivation and integration by means of spline functions 5786
- Dirling, R. B., Jr.  
See Timmer, H. G. 9104
- Dispaux, J.-C.  
See Sibulkin, M. 1868
- Diver, M.  
Study of folded plates 5955
- Dixmier, M.  
See Andrews, D. G. 9807

- Dixon, G. V.  
See Leatherwood, J. D. 6673
- Dixon, L. C. W.  
Further comments on Pontryagin's maximum principle applied to the profile of a beam 2347
- Dixon, M.  
See Probert, S. D. 8919
- Dixon, S. C.  
Effect of edge restraint coupling on buckling of ring-supported cylinders 3213
- Dixon-Lewis, G.  
Flame structure and flame reaction kinetics: Part 2, Transport phenomena in multicomponent systems 7294
- Dizhechko, N. N.  
See Arkhinov, V. N. 8711
- Djonin, K.  
See Curtet, R. 1819
- Djordjevic, V.  
See Saljnikov, V. 5382
- Djubek, J.  
The bifurcation of equilibrium of elastic body 6701
- Dlugach, M. I.  
Linearization of the equations of stability of shells 5058
- Dmitriev, A. A.  
Thermal conditions of the sea 1397
- Dmitrieva, N. T.  
See Apatovskii, L. E. 5456
- Doak, P. E.  
A note on the relative importance of discrete frequency and broad-band noise generating mechanisms in axial fans 8166
- Dobbertin, R.  
On the origin of the irreversibility of the kinetic equation with functional derivatives 8887
- Dobos, A.  
A hydraulic study of removable sprinkler irrigation pipelines 361
- Dobromislov, A. N.  
Investigation of spherical shells of revolution under concentrated and annular loads 6775
- Dobrovolskaya, Z. N.  
On some problems of similarity flow of fluid with a free surface 9634
- Dodge, F. T.  
Simulated low-gravity sloshing in cylindrical tanks including effects of damping and small liquid depth 8846  
See also Chu, W. H. 4705
- Dodson, C. T. J.  
A new approach to the fracture of bonds in a random fibrous network such as paper 3324
- Doe, P. E.  
Measurement of a mass transfer boundary layer 1254
- Doering, E.  
Practical thermodynamics 9796
- Doggett, R. V., Jr.  
Effects of flexibility on lift and pitching-moment characteristics of a series of low-aspect-ratio wing-body combinations at transonic speeds 1884
- Dohnalova, B.  
See Binek, B. 695
- Doi, H.  
Multiaxial tensile impact behaviors of films 6050
- Doi, O.  
Measurement of three principal residual stresses in a polar-anisotropic cylinder: Principal residual stresses in log 1747  
Measurement of principal residual stresses in orthotropic plate: Principal residual stresses in wooden plate 5211
- Dokuchaev, V. P.  
Radiation of sound waves by bodies moving in helical lines 6511  
On the linearized theory of flow around bodies: Method of force sources 7942
- Dolapciiev, B.  
On the construction and application of a new form of equations for analytical dynamics 859  
The Appell-Cenov forms for the equations of motion of holonomic and nonholonomic mechanical systems, their generalizations, and criteria for their application 860
- Dolezal, R.  
Large boiler furnaces: Theory, construction and control 1259
- Dolgikh, M. A.  
Simplified method of determination of tensile strength of rocks 993
- Dolgov, V. L.  
See Baron, L. I. 3876
- Dolinskii, E. F.  
Metrological successes and problems in the field of pressure measurements 3383
- Dolinsky, A.  
Coupling of longitudinal and transverse modes in a Vlasov plasma 8118
- Dolobovskii, R. F.  
See Tarnopolskii, Yu. Ya. 7186
- Dolton, T. A.  
See Schneider, P. J. 653
- Dombrowski, N.  
A study of the Venturi-pneumatic pyrometer with particular reference to its use with gases containing high soot concentrations 8896
- Donaldson, C. duP.  
A computer study of an analytical model of boundary-layer transition 9723
- Donat, R. C.  
See Heller, R. A. 1011
- Done, G. T. S.  
A study of binary flutter roots using a method of system synthesis 8161  
The flutter and stability of undamped systems 8162
- Donea, J.  
See Massonnet, Ch. 5070
- Dong, S. B.  
Analysis of laminated shells of revolution 5952
- Donnelly, R.  
See Brockman, H. E. 1206
- Dontsova, G. P.  
See Kozdoba, L. A. 5484
- Dooley, J. W.  
Rotating sample holder for X-band ultrasonics 2112
- Doolittle, R. D.  
Sound scattering by elastic cylinders 675
- Dorato, P.  
Application of game theory to the sensitivity design of optimal systems 2266  
See also Youla, D. C. 4888
- Dordevic, V. D.  
Laminar boundary layer on slender bodies of revolution 7129
- Dore, B. D.  
Viscous damping effects in long waves on the rotating Earth 1147  
The decay of oscillations of a non-homogeneous fluid within a container 8842
- Dorland, W. D.  
See Wren, R. J. 1370
- Dorlhac, F.  
See Amy, J. 8158  
Amy, J. 8159
- Dorman, L. M.  
Anelasticity and the spectra of body waves 710
- Dorman, T. E.  
The application of controlled-vortex aerodynamics to advanced axial flow turbines 4440
- Doron, Z. J.  
Mean annual severity: An extension of the quantitative-probabilistic approach to reactor safety analysis 8981
- Doroszkiewicz, R. S.  
A method of photoelastic analysis of states of stress of bodies of jump-like nonhomogeneity loaded by their own weight 9534
- Dorzhiev, D. D.  
An excitation method in the problems of applied theory of elasticity 5081
- Dosanji, D. S.  
See Weeks, T. M. 4664
- Dost, W.  
See Hofmann, G. 2515
- Dostatni, M.  
Numerical calculation of the thermodynamic properties of oxidizing combustion gases 2013
- Dote, T.  
Characteristics of plasma resonance probe and RF impedance probe in a magnetic field 2063
- Doucet, H.  
Simultaneous measurements of ion-acoustic-wave potential and plasma density perturbation to yield 4594
- Dougal, A. A.  
See Kristiansen, M. 8152

- Dougall, R. S.  
See Lippert, T. E. 7290
- Dougherty, J. P.  
Model Fokker-Planck equations:  
Part 2, The equation for a multi-  
component plasma 6471  
Model Fokker-Planck equations:  
Part 3, Application to transport  
phenomena 6472  
Model Fokker-Planck equations:  
Part 2, The equation for a multi-  
component plasma 7322  
Model Fokker-Planck equations:  
Part 3, Application to transport  
phenomena 7323
- Douglas, B. E.  
The critical damping calculator and  
a comparison of selected structural  
damping evaluation systems 5098
- Douglas, G. W.  
Studies of combustion efficiency  
and flame shape for opposed-jet  
flameholders 3737
- Douglas, J. Jr.  
See Cannon, J. R. 558
- Downarovich, S. V.  
On the choice of the size of the  
model of foundation when model-  
ing the settlements of sandy founda-  
tion 4198
- Dow, M. B.  
See Bush, H. G. 4741
- Dow, N. F.  
See Rosen, B. W. 1756
- Dowd, P. J.  
Habituation transference in Coriolis  
acceleration 6591
- Dowell, E. H.  
Theoretical-experimental correlation  
of plate flutter boundaries at low  
supersonic speeds 2885  
Nonlinear analysis of the flutter of  
plates and shells 5607
- Dowson, D.  
Traction in elastohydrodynamic con-  
tacts: Part 2, Effect of surface  
quality upon the traction charac-  
teristics of lubricated cylindrical  
contacts 4787  
A thermohydrodynamic analysis of  
journal bearings 8286
- Doyle, J. M.  
Plastic design of flexible conduits 5032
- Draganu, M.  
On the semiphenomenological theo-  
ry of Alfvén waves in a plasma with  
finite electrical conductivity 1271
- Dragos, L.  
A contribution to the study of end  
effects on the flow in magneto-  
hydrodynamic generators 3791  
Influence of electric conductivity  
tensor on the flow in a magneto-  
hydrodynamic generator 8157
- Dragosavic, M.  
Application of the moire-method in  
determining the directions of the  
principal stresses in plates 9541
- Dragota, G.  
Comparative study of certain wave  
generator types used at I.H.R. for  
hydraulic model tests 8749
- Draigor, D. A.  
Main directions of research on the  
wear resistance and running-in char-  
acteristics of sintered antifriction  
materials 8282
- Drake, R. M., Jr.  
Sensible heat transfer in the Gemini  
and Apollo space suits 5506
- Dranovskii, A. N.  
Common errors in the design of  
linings for underground structures  
of circular cross section 3179
- Dransfield, P.  
Engineering systems and automatic  
control 799
- Drazheva, L.  
See Girgorov, G. 4607
- Drda, W. J.  
On the height of incipience of boil-  
ing in tubes of small diameter for a  
liquid in laminar flow 8928
- Drescher, A.  
Nonlinear creep of cohesive soil 242  
A study of kinematics of a granular  
body by indentation with a plane  
punch 2448
- Dreshpak, V. A.  
Calculating the influence of non-  
uniform heating in determining the  
modulus of elasticity by the dy-  
namic method 9553
- Dressler, R. M.  
See Meier, L., III 63
- Drew, F. P.  
Recorded stress histories in railroad  
bridges 5240
- Drexler, J.  
Some problems of the reproduction  
of random loads in the testing of  
aircraft structures for fatigue 4246  
On the estimate of the time to  
quasi-static failure of an aircraft  
structure caused by a two-dimen-  
sional random stress process 6626
- Dreyfus, S. E.  
The numerical solution of nonlinear  
optimal control problems 842  
Dynamic programming and the  
Hamilton-Jacobi method of classi-  
cal mechanics 2195
- Driban, S.  
See Rubin, A. I. 3937
- Drillis, R.  
Body segment parameters: A survey  
of measurement techniques 2983
- Dring, R. P.  
A theoretical investigation of dis-  
turbance amplification in external  
laminar natural convection 7237  
See also Gebhart, B. 1218
- Drittler, K.  
The evaluation of hydrodynamic  
properties for ship motion parallel  
to the water surface and at colli-  
sions: Part 1 5706
- Drobnokhod, N. I.  
Determination of the water yield  
coefficient of a stratum on the  
basis of a hydromechanical analysis  
of the parameters of an unsteady  
filtration flow 5675
- Drobota, V.  
A general method for computing the  
buckling critical load on continu-  
ous pendulum beams under trans-  
verse loads 7727
- Droste, K.  
Indications for designing friction  
bearings with low sliding speeds 1779
- Drouot, R.  
On a case of integration of equations  
of incompressible flow of second  
order 1083
- Drozдовskii, B. A.  
Methods for determining crack sensi-  
tivity 3327  
See also Abramovich, M. D. 3334
- Drucker, D. C.  
On the use of simple discontinuous  
fields to bound limit loads 7645  
See also Palmer, A. C. 1606
- Druker, I. G.  
Critical heat flux with steam-water  
mixture flowing in tubes 6415
- Drummond, A. J.  
Solar radiation measurements on  
Mauna Loa (Hawaii) and their  
bearing on atmospheric transmis-  
sion 1405
- Druzhinin, E. I.  
Investigation of the stability of one  
rotation of special gyrostats 7583
- Dryer, M.  
Energy deposition in the solar wind  
by flare-generated shock waves 3856
- Dubbeck, H.  
Theory of elasticity, especially con-  
cerning trussless structures 4017
- Dube, S. K.  
On unsteady hydromagnetic flow  
on an electrically conducting in-  
compressible fluid in contact with  
a harmonically oscillating plate 9863
- Dubey, G. K.  
A dual-mode control scheme for  
systems with high accuracy and  
large range of step-input variations 3940
- Dubinskii, A. M.  
See Varvak, M. Sh. 6998
- Dubinskii, Yu. A.  
Solvability of equations for intense  
bending of plates 7721
- Dubois, P.  
Low-temperature fuel cells 2752
- Dubovskii, S. V.  
Interplanetary and interorbital  
flights 6496
- Dubrovskii, E. F.  
See Ainbinder, S. B. 4223
- Dubrovskii, I. S.  
Hydrodynamic flowmeters for meas-  
uring liquid flowrate 3619
- Duckenfield, M. J.  
A survey of optimum control system  
theory: Part 1, Part 2, Part 3 839



- Duda, J. L.  
Laminar liquid jet diffusion studies 1820
- Dudderar, T. D.  
Applications of holography to fracture mechanics 9545
- Dudek, T. J.  
See Blenner, D. R. 5101
- Dudtchenko-Dudko, V. M.  
Layout of logical scanning device 1552
- Dudzinski, T. J.  
Venturi meter with separable diffuser 8874  
See also Glawe, G. E. 506
- Duff, R. E.  
Time interval multiplier for shock tube studies 1926
- Duffey, T. A.  
Experimental-theoretical correlations of impulsively loaded clamped circular plates 8460
- Duffill, A. W.  
The design and development of a hydrostatic extrusion machine 6082
- Duffin, R. J.  
Optimum shape of a cooling fin on a convex cylinder 2770  
Optimum heat transfer and network programming 5478  
The influence of Poisson's ratio on the vibrational spectrum 9403
- Dufresne, P.  
The study of "slurry" explosives in metal mines and in trap rock in the United States 3300
- Dugan, J. P.  
Viscous drag of bodies moving near a free surface 9638
- Dugdale, D. S.  
Flexure of thin plates containing internal stress 4069
- Dukhovskoi, E. A.  
Controlling the adhesion component of friction 1421
- Dukler, A. E.  
See Telles, A. S. 3543
- Dukowicz, J. K.  
The flat-plate magnetohydrodynamic boundary layer in a transverse magnetic field 5574
- Dulnev, G. N.  
Analysis of experimental data on the heat conductivity of solid porous systems 2768  
Heat transfer through solid disperse systems 5476
- Dumargue, P.  
Electronic measurement of the flow velocity in a shock tube 8879  
See also Chartier, C. 7153
- Dumas, H.  
See Bouvard, M. 2686  
Bouvard, M. 7149
- Dumas, R.  
See Favre, A. 9712
- Dumitrescu, V.  
Principles for designing and organizing the hydrometrical network 712
- Dumitrescu-Enacu, A.  
The use of matrices in elastomechanics 4824
- Du Mong, W.  
See Poas, J. 1683
- Dumousseau, P.  
Ionization by high frequency induction of supersonic flows and variation of their dynamic properties 7096
- Duncan, J. F.  
See Robinson, G. C. 6913
- Duncan, T. R.  
Shear-stress field of a simple dislocation cell 2344  
New data on the shear stresses and energies of 1/2 {110}, {111} edge dislocations in elastically anisotropic fcc metals 3152
- Dundr, J.  
The measurement of the gas jet velocity at high temperatures and high velocity 500
- Dundurs, J.  
See Weeks, R. 3147  
Amon, R. 8464
- Dunham, J.  
A theory of circulation control by slot-blowing, applied to a circular cylinder 3567
- Dunham, T. D.  
An experimental investigation of an active vibration absorber 5103
- Dunin-Barkovskii, I. V.  
Development of the surface-roughness measurement techniques in the USSR 3884
- Dunlap, R. W.  
Local stress measurement using the thermoelastic effect 294
- Dunn, J. C.  
An explicit closed-loop controller for gravity turn landing maneuvers 4881
- Dunn, M. G.  
See Kang, S.-W. 5330
- Dunphy, K. H.  
Energy coupling at a two-fluid plasma density discontinuity 2860
- Dunskii, V. G.  
Atomization of a liquid by a rotating disk and "secondary" break-up of droplets 5663
- Dupeyrat, G.  
Study using the theory of servomechanisms, of the stability of a one-dimensional multiphase flow in a porous medium 8230
- DuPre, D. B.  
See Tobolsky, A. V. 2325
- Dupre, F.  
See Careri, G. 2594
- DuPuis, R. A.  
See Bauer, A. B. 7936
- Durbeck, R.  
See Rissanen, J. 3040
- Durelli, A. J.  
Optimization of a slot end configuration in a finite plate subjected to uniformly distributed load 871
- Experimental strain and stress analysis of solid propellant rocket motors 8653
- Stresses and strains in reinforced concrete 9530
- Stress and finite-strain analysis of a circular ring under diametral compression 9538
- See also Parks, V. J. 2499  
Parks, V. J. 3115  
Chiang, F.-P. 5203  
Clark, J. A. 6124
- Duric, M. D.  
On the solution of unsteady laminar boundary layers past bodies of revolution spinning about its axis 2671  
On the boundary problem for the nonlinear Navier-Stokes equations on a Riemannian manifold 4354  
On the method for solution of unsteady thermal boundary-layers in case of two-dimensional low-speed flows 6296
- Durieu, J.  
Determination of an orbit from only three angular measurements 1336
- Durney, B.  
Convective spherical shell: Part 1, No rotation 3851
- Durran, D. A.  
See Grabowsky, W. R. 3609
- Durvasula, S.  
Vibration and buckling of orthotropic rectangular plates 4130  
Natural frequencies and modes of skew membranes 5989
- Dushchenko, V. P.  
Research of thermoradiational drying of colloid bodies 3692
- Dushek, M.  
Plastic behavior of shallow spherical shells under large deflections 3185
- Dussault, J. G.  
See List, R. 1986
- Dussourd, J. L.  
An investigation of pulsations in the boiler feed system of a central power station 8092
- Duszczyk, B.  
Stability of a thick-walled tube subject to external pressure 2393
- Dutkiewicz, R. K.  
Free convection in a heat-generating fluid 2782
- Dutta, P. K.  
The determination of stress waveforms produced by percussive drill pistons of various geometrical designs 6025
- Dutton, R. A.  
The drag of some wedge center-body intakes at Mach numbers of 1.56, 1.86 and 2.14 9757
- Duval, A.  
Kinetical study of hydrogen-nitrous oxide flames 2824
- Duvall, D. S.  
Studies of postweld heat-treatment cracking in nickel-base alloys 7915

- Duvaut, G.**  
Phenomena of reflection, refraction of plane uniform waves in nonlinear elastic materials 977  
*See also* Lanchon, H. 9332
- Duytschaever, D.**  
Numerical computation of the frequency response from a nonideal step response 6651
- Dvali, R. R.**  
A coiled band mechanism for the recovery of a vehicle's mechanical energy 7013
- Dvorak, A.**  
Dynamic tests of piles and the verification of results by static loading tests 8589
- Dvorak, F. A.**  
Heat-transfer calculations for the constant-property turbulent boundary layer and comparisons with experiment 9828
- Dvorak, R.**  
The behavior of a shock wave at a boundary layer and the determination of the shock wave and boundary-layer interaction in the transonic flow 414  
Dynamics of high-temperature gases 523  
Transonic flow of a reacting gas mixture 7969
- Dvornichenko, V. V.**  
Critical conditions with adiabatic flow of two-phase fluid from a Laval nozzle 7113
- Dvornikov, V. I.**  
*See* Garkusha, N. G. 3228
- Dwight, J. B.**  
Welded steel plates in compression 9564
- Dworschak, J. R.**  
MHD power generation using an rf-generated nonequilibrium plasma 3792
- Dwyer, H. A.**  
Solution of a three-dimensional boundary-layer flow with separation 1869
- Dwyer, O. E.**  
*See* Kalish, S. 8045
- Dyachenko, V. F.**  
A model for continuous media 3434
- Dyachenko-Dzin, N. K.**  
Transverse flexure of a trapezoidal plate with the two oblique edges rigidly built in 8467  
Transverse flexure of a parallelogram plate with two rigidly built-in edges 8468
- Dyachina, O. P.**  
*See* Sheremetev, M. P. 9348
- Dyakonov, Yu. N.**  
Method of characteristics for the calculation of two-dimensional vortex flows of an equilibrium and perfect gas 403
- Dyatlovitskii, L. I.**  
A two-dimensional axisymmetric problem for a swelling body with a variable modulus of elasticity 7594
- Dyer, A. J.**  
The Fluxatron: A revised approach to the measurement of eddy fluxes in the lower atmosphere 2156
- Dyer, C. H.**  
*See* Youshaw, R. A. 1028
- Dyer, D. F.**  
Heat and mass transfer mechanisms in sublimation dehydration 9839
- Dyer, P.**  
*See* Noton, A. R. M. 3979
- Dyert, J. C.**  
*See* Bjorklund, I. S. 2128
- Dym, C. L.**  
Dynamics of anisotropic elastic solids 5986
- Dymek, F.**  
A three-dimensional axisymmetric problem of the theory of elasticity with mixed boundary conditions 9296
- Dyment, A.**  
Plane second-order approximation of heavy permanent waves of two immiscible liquids' flow over a horizontal bottom 9625  
On an exceptional phenomenon of heavy wave-train propagation in a cylindrical canal 9773  
On the indeformable heavy waves in second order approximation in a cylindrical canal 9774  
*See also* Martinot-Lagarde, A. 4327
- Dyne, G.**  
A method for the design of ducted propellers in a uniform flow 9142
- Dyukalov, A. N.**  
Distribution of particles in the neighborhood of an infinite charged cylinder placed in a plasma 9878
- Dyurki, J.**  
Experimental investigation of simple adaptive system by means of analog computer 1548
- Dzakovic, G. S.**  
An analytical description of the waiting period between successive vapor bubbles formed during nucleate boiling 9835
- Dzhafarova, N. M.**  
Estimating the possibility of computer realization of a universal algorithm in elementary algebra 791
- Dzhamalova, A. S.**  
Thermal flow and generation of radiogenic heat in Epi-Hercynian structures of Daghestan 4753
- Dzhaugashtin, K. E.**  
Propagation of a plane jet of conducting fluid 619
- Dzholdasbekov, U. A.**  
Force analysis of mechanisms 9608
- Dzholdykaraev, K. B.**  
Numerical solution of the problem of the flow of an ideal fluid past a torus 4367
- Dzhordzhio, V. A.**  
Physical nature of jet streams in the atmosphere 9983
- Dzhubalieva, P. A.**  
Effect of leakage from a solar still on its performance under thermal head 1404
- Dzhumanaliev, N. D.**  
Small oscillations of black and white bodies stabilized by radiation pressure 1563
- Dzhushupov, K.**  
*See* Stanyukovich, K. P. 4389
- Dzialis, J. W.**  
Temperature distribution around a cylindrical probe in water 3646
- Dzung, L. S.**  
Determination of the tolerances for heat-drops and enthalpy differences of steam 1947
- Dzygadlo, Z.**  
Nonstationary parametric and parametric self-excited vibration of a plate of finite length in plane supersonic flow 7337

## E

- Earles, S. W. E.**  
Pulsating flow measurement using an orifice-manometer system 1173  
Variations in friction and wear between unlubricated steel surfaces 4777
- Earls, D. L.**  
*See* Sevy, R. W. 6851
- Earnshaw, P. B.**  
Measurements of the effects of thickness on vortex breakdown position on a series of sharp-edged delta wings 9755
- Easley, A. J.**  
*See* Kascak, A. F. 1264
- Easter, R. W.**  
*See* Prokopius, P. R. 5458
- Eastwood, W.**  
*See* Blockley, D. I. 5873
- Ebner, H.**  
Strength problems of submarines 7004
- Ebrahimi, I.**  
Turbulence in isothermal free jets 9735
- Ecabert, R.**  
Approximation method for determining the difference in efficiency between two similar steam power plants 6371
- Eckel, J. R.**  
How mud and hydraulics affect drill rate 265
- Eckert, B.**  
Has the automotive gas turbine a chance?: Part 1 5546  
Has the automotive gas turbine a chance?: Part 2 5547  
Has the automotive gas turbine a chance?: Part 3 5548  
Has the automotive gas turbine a chance?: Part 4 5549
- Eckert, E. R. G.**  
Heat transfer: A review of current literature 2767  
Reverse transition turbulent-laminar flow for flow through a tube with fluid injection 7073

- Eckert, E. R. G. (Continued)**  
 Heat transfer: A review of current literature 8040  
 Heat transfer bibliography 9811  
 Advances in plasma heat transfer 9820  
*See also* Goldstein, R. J. 5523  
 Goldstein, R. J. 8102
- Eckert, H. U.**  
 Spectroscopic observations on induction-coupled plasma flames in air and argon 9020
- Eckford, D. J.**  
*See* Taylor, A. S. 9024  
 Taylor, A. S. 9743
- Eden, E. W., Jr.**  
 Currents in an interoceanic canal 7041
- Eden, H. F.**  
*See* Bowden, M. 7239
- Edenborough, N. B.**  
 High-temperature eddy current crack detection 7862
- Eder, E.**  
 Flow of materials and specific normal force in the surface layer of plastically deformable pieces during free upsetting between plane-parallel pressure faces 5892
- Edgerton, H.**  
*See* Klein, M. 1400
- Edinger, J. E.**  
 Analyzing steam electric power plant discharges 6427
- Edmond, J. T.**  
 On the suitability of liquid semiconductors for resistance thermometry in nuclear reactors 4497
- Edmonds, D. V.**  
 The effect of inclusions on the stress distribution in solids 6126
- Edney, B. E.**  
 Effects of shock impingement on the heat transfer around blunt bodies 1105  
 Anomalous heat transfer and pressure distributions on blunt bodies at hypersonic speeds in the presence of an impinging shock 1106
- Edney, K.**  
 Longitudinal temperature distribution in low temperature cables with counterflow cooling 2777
- Edwards, C. L. W.**  
 Low-density, leading-edge bluntness and ablation effects on wedge-induced laminar-boundary-layer separation at moderate enthalpies in hypersonic flow 1867
- Edwards, C. M.**  
 An analysis of the plastic interaction of surface asperities and its relevance to the value of the coefficient of friction 2332  
 Experimental study of the plastic interaction of model surface asperities during sliding 3867
- Edwards, D. H.**  
*See* Bull, D. C. 3520
- Edwards, D. K.**  
 Prediction of heat transfer by natural convection in closed cylinders heated from below 8909  
 Radiative transfer characteristics of materials 8924
- Edwards, F. G.**  
 Entries from Earth orbit that simulate acceleration stresses of manned planetary missions 2089
- Edwards, R. H.**  
 Radiant heat transfer from isothermal dispersions with isotropic scattering 1981
- Edwards, R. M.**  
*See* Probert, S. D. 8919
- Efimov, I. A.**  
 Elastic stability of sandwich cylindrical shells with a corrugated filler in the case of combined loads 161
- Efron, L.**  
 Electromagnetic velocity-transducer studies of plastic waves in aluminum bars 8573
- Efstathiades, G. J.**  
 Subharmonic instability in nonlinear two-degree-of-freedom systems 6871
- Eftimiou, C.**  
 Green's function of a particle in a uniform external field 1557
- Egerv, V. K.**  
 Transitional diffusion in double layer tissues reacting with diffusing substance 2987
- Eggers, F.**  
 A resonator method for the determination of sound velocity and attenuation with small quantities of liquid 6528
- Eggers, J. M.**  
 An experimental investigation of the mixing of compressible-air jets in a coaxial configuration 9693
- Eggers, K.**  
 On the uniqueness of the wavefield of submerged bodies in stationary horizontal motion 6332
- Eggert, H.**  
*See* Erler, W. 2422
- Eggestad, I.**  
 Symposium on testing techniques in ship cavitation research; Vol. 1, Vol. 2 6967
- Egidi, A.**  
 Measurement of the solar wind direction with the IMP 1 satellite 8254
- Egle, D. M.**  
 An analysis of free vibration of orthogonally stiffened cylindrical shells with stiffeners treated as discrete elements 1674  
*See also* Dunham, T. D. 5103
- Egorkin, A. V.**  
 Using methods of mathematical statistics to determine the velocity parameters of the Earth's crust from reflected-wave travel-time curves 709
- Egorov, A. I.**  
 Necessary optimality conditions for distributed-parameter systems 1535
- Egorov, I. A.**  
 Dynamic calculation of three-dimensional frames by the method of balancing the moments of the joints 325
- Egorov, N. F.**  
 Scale-modeling of sound-absorbing layers of fibrous materials 1360
- Egorov, V. A.**  
 Return trajectories from Moon to Earth 4648
- Egorov, V. I.**  
 Thermal fatigue testing in vacuum at up to 1500°C 2942
- Egusa, T.**  
*See* Takada, Y. 5093
- Ehiro, T.**  
*See* Taira, S. 5194
- Ehlers, F. E.**  
 Pressure oscillations produced in a wind tunnel by hinged plates in the walls of the test section 4470
- Ehrich, F.**  
 Aeroelastic instability in labyrinth seals 8709
- Ehrly, A. M.**  
 Reduction in blood viscosity at low rates of shear by surface active substances: A new hemorheologic phenomenon 9165
- Eibling, J. A.**  
*See* Trayser, D. A. 721
- Eichblatt, D. L.**  
 Experimental verification of scale factors for parawing opening characteristics 1140
- Eichner, M.**  
*See* Isermann, R. 3061
- Eidinov, V. Ya.**  
*See* Dunin-Barkovskii, I. V. 3884
- Eiduk, R. P.**  
*See* Galitskii, V. G. 5146
- Eimer, C.**  
 On the calculation of phase elasticity constants in concrete 7897  
 Theoretical approach to the design of prestressed cross sections 8692
- Eimer, Cz.**  
 The boundary effect in elastic multiphase bodies 3130  
 Stresses in multi-phase media 4950
- Einarsson, A.**  
*See* Wragg, A. A. 1240
- Einarsson, B.**  
 Primary creep in thickwalled shells 9322
- Einaudi, F.**  
 Higher order approximations in the theory of longitudinal plasma oscillations 2851  
 Singular perturbation analysis of acoustic-gravity waves 9769
- Einspruch, N. G.**  
*See* Claiborne, L. T. 9932
- Einstein, H. A.**  
 Deposition of suspended particles in a gravel bed 3472
- Eisenberg, M. A.**  
 On nonlinear kinematic hardening 7648
- Eisenfeld, J.**  
 Normal mode expansion and stability of Couette flow 6454

- Eisenklam, P.  
Evaporation rates and drag resistance of burning drops 3715
- Eisenstadt, R.  
A comparison of results of axial-tension, rotating-beam and pressurized-cylinder fatigue tests 8633
- Eisler, J. D.  
Investigation of a method for determining stress accumulation at depth: Part 2 8236
- Eisler, T. J.  
Stability of Helmholtz flow in an unstable atmosphere 6569
- Ejike, U. B. C. O.  
See Sneddon, I. N. 8407
- Eknadiosyants, O. K.  
Role of cavitation in the process of liquid atomization in an ultrasonic fountain 6237
- Elagib, A. A. R.  
An expression for the coefficient of velocity of Venturi meters 1168
- El-Badrawy, R.  
Procedures for the determination of thermal fatigue strength of metals 7399
- El-Behairy, S.  
Stresses in wall-type girders with internally applied point loads 8452
- Elborai, M. M.  
On the correct formulation of the Cauchy problem and the mixed problem for a self-adjoint equation 6612
- El-Dakhkhni, W. M.  
See Bryan, E. R. 7003
- Elder, J. W.  
The unstable thermal interface 1217
- Eldred, K. McK.  
Vibroacoustic environmental simulation for aerospace vehicles 5089
- Elenkov, D.  
See Boyadzhiev, L. 8104
- Eleonskii, V. M.  
Stability of simple stationary waves related to the nonlinear diffusion equation 2709
- El Hares, H.  
Studies of the dynamics of heat exchangers 7277
- Elias, Z. M.  
Duality in finite element methods 6758
- Eliashvili, D. G.  
Engineering theory of constrained torsion of prismatic thin-walled beams 3158
- Eliot, F. C.  
Elastic waves propagation in circular cylinders having hexagonal crystal symmetry 4166
- Elishakov, I. B.  
Investigation of strength and rigidity of nonmagnetic hollow rotors 9367
- Elizarov, D. P.  
Experimental determination of stress in a boiler drum during startup and shutdown 3820
- El-Kalay, A. K. E. H. A.  
Factors affecting friction and their effect upon load, torque, and spread in hot flat rolling 2464
- El-Kasrawy, T.  
See Perrone, N. 2438
- El-Khalafawy, T. A.  
See Masoud, M. 9014
- Elkoush, A. F.  
Laminar flow between rotating porous disks 6250
- Ellen, C. H.  
A comparison of membrane and panel flutter 9023
- Eller, A.  
Force on a bubble in a standing acoustic wave 678
- Ellinwood, J. W.  
Axisymmetric hypersonic flow with strong viscous interaction 9670
- Elliott, D. G.  
Variable-velocity MHD induction generator with rotating-machine internal electrical efficiency 3793
- See also Cerini, D.J. 7333
- Elliott, J. P.  
Free-molecule flow past a cone 5370
- Elliott, S. E.  
See Osborn, J. J. 4811
- Ellis, D.  
See Matthews, L. S. 8427
- Ellison, A. J.  
See Moore, C. J. 2927
- Ellison, J. C.  
Experimental stagnation-point velocity gradients and heat-transfer coefficients for a family of blunt bodies at Mach 8 and angles of attack 7250
- Ellison, R. J.  
The effect of tetraethyl-lead on flame propagation and cyclic dispersion in spark-ignition engines 4565
- Ellyin, F.  
Effect of skew penetration on stress concentration 5864
- Elastic-plastic behavior of intersecting shells 9374
- Elmqvist, R.  
Measurement of pressure and flow in medicine 5742
- Elperin, I. T.  
Thermodynamic investigation of heat and mass transfer in a nonuniform gas suspension flow 8889
- Elrod, H. G., Jr.  
See Razelos, P. 3028
- Elsner, J.  
Influence of the initial turbulence of flow on the evolution of wakes behind cascade blades 8757
- Elson, W. K.  
An experimental investigation of the stability of slurry trenches 990
- Elvery, R. H.  
A direct tensile test for concrete under long- or short-term loading, 6146
- Elyasberg, P. E.  
See Kugaenko, B. V. 9900
- Emanuel, G.  
Radiative transport in an optically thick planar medium 7257
- Emerson, A.  
The calculation of ship resistance: An application of Guilloton's method 9138
- Emery, A. F.  
Temperature distributions in laminar flat plate shear flow 2653
- Temperature distributions in laminar flat plate shear flow 3665
- Recompression step heat transfer coefficients for supersonic open cavity flow 9829
- Emery, J. C.  
See Keyes, J. W. 3686
- Emets, P. P.  
Comparing the results of rotating turbine blade flow measurements using Pitot or Stanton tubes, with computer calculations 9850
- Emmons, D. L.  
See Fuehrer, H. R. 2833
- Emmons, H. W.  
The fire whirl 4560
- Emori, R. I.  
See Ishihara, T. 7014
- Emrich, H. W.  
See Stevenson, C. L. 4727
- Endersbee, L. A.  
Brittle fracture in concrete and rock 991
- Endo, K.  
Fatigue properties of fiberglass reinforced plastics: Effects of stress direction and mean stress 6119
- A study of fatigue crack propagation in a coating film on base metal 8638
- Ene, H. I.  
Two-dimensional rotational motion of incompressible perfect fluids in presence of a nonhomogeneous porous body 3836
- Engdahl, E. R.  
Computational methods 4750
- Engel, F. V. A.  
Interpreting pulsating flows: Use of nondimensional groups 3618
- Engelmann, F.  
See Cavaliere, A. 6465
- Cavaliere, A. 8116
- Engels, D. A.  
The describing functions for a constrained-range integration process with bang-bang input and dead zone 1494
- Engh, T. A.  
Effect of injected air on the rate of flow of solids 9963
- Engle, I. A.  
Simulation of two mechanical fuzes 2218
- Engler, N.  
See Luers, J. 33



- Enig, J. W.  
Approximate solutions in the theory of thermal explosions for semi-infinite explosives 2902
- Ennos, A. E.  
Measurement of in-plane surface strain by hologram interferometry 3362
- Enomoto, H.  
See Katayama, T. 3955
- Entin, I.  
See Getmanskii, A. 1744  
Getmanskii, A. 7595
- Entov, V. M.  
On some two-dimensional problems of the theory of filtration with a limiting gradient 8226
- Epinatova, A. M.  
See Faizullin, I. S. 970  
Kaptan, A. D. 4179
- Eppler, R. A.  
Viscosity of porcelain enamel frits 6224
- Epshtein, A. M.  
Shape of turbulent jet axis in an unbounded horizontal cross flow 5354
- Epshtein, G. N.  
See Kaibyshev, O. A. 892
- Epshtein, V. L.  
See Nisnevich, L. B. 6670
- Epshtein, Yu. V.  
See Bobrov, V. I. 1943
- Epstein, M.  
A model of the wall boundary condition in kinetic theory 5365
- Epstein, N.  
See Ratkovsky, D. A. 5295
- Eraslan, A. H.  
Heat transfer in magnetohydrodynamic channel flow 8986  
Temperature distributions in MHD channels with Hall effect 9866  
See also Frost, W. 7255  
Snyder, W. T. 8114
- Eraslan, N. F.  
A note on straight-line generating mechanisms incorporating a belt-pulley transmission 2564  
See also Eraslan, A. H. 8986
- Erdelyi, A.  
New results of the rheological investigation of prestressing cables 1598  
Rheological properties of prestressing wires 1599  
Approximate solutions of a nonlinear boundary value problem 5757
- Erdmann, J. C.  
Affected volume and temperature rise during discontinuous slip at low temperatures 3151
- Erdmann, R. L.  
Character legibility and digital facsimile resolution 7519
- Erdmann, S. F.  
Optimization of nozzle shape and determination of local flow direction by application of Mach distributions in supersonic flow 5358
- Erdogan, F.  
Simultaneous dual integral equations with trigonometric and Bessel kernels 6618
- Eremeev, G. G.  
The significance of annual temperature differentials in the design of structures for climatic effects 9083
- Ergardt, N. N.  
Temperature measurements with tungsten-rhenium and tungsten-molybdenum thermocouples and their calibration methods 9806
- Ericksen, J. L.  
Propagation of weak waves in liquid crystals of nematic type 1896
- Erickson, L. E.  
See Fox, V. G. 9706
- Erin, T.  
Uniform charged solid particle production 4722
- Eringen, A. C.  
Mechanics of continua 1451  
Mechanics of micromorphic continua 6725  
Continuum theory of nonlinear viscoelasticity 6725
- Erlar, W.  
Calibration of vibration pickups by the reciprocity method 2422
- Erlach, E.  
Probing in flight the boundary layer of the supersonic airplane Mirage IV 2672
- Ermakov, V. I.  
State standard of time and frequency 3257
- Ermolev, Yu. M.  
Shortest admissible paths: Part 1 1470
- Ershin, Sh. A.  
See Voichak, V. P. 5353
- Ershkovich, A. I.  
Transport of charged particles in a dipole magnetic field under the influence of perturbing electromagnetic impulses 69
- Ershov, L. V.  
On conditions of quasi-brittle fracture 4220
- Ershov, V. N.  
See Belan, N. V. 8867
- Ertel, H.  
A theorem on the steady flow of barotropic fluids with transverse vortices 392
- Eryukhin, A. V.  
See Gulyaev, M. A. 6365
- Erzberger, H.  
Technique for calculating optimum takeoff and climbout trajectories for noise abatement 9763
- Erzhanov, Zh. S.  
Second fundamental problem for an elastic plane with a double-periodic system of elliptic holes 9287
- Escande, L.  
Phenomena of cavitation and overpressure caused by the rapid closing of a gate 475
- Esche, V.  
Experimental investigations concerning the magnitude of the edge effect and the influence of parameters 9927
- Eschrich, R.  
Experimental studies of the conical diffusers of Venturi tubes 1172
- Eschweiler, J. C.  
Liquid rocket engine feed system dynamics by the method of characteristics 6345
- Escudier, M. P.  
The influence of strong adverse pressure gradients on the effectiveness of film cooling 2816
- Eshel, N. N.  
See Mindlin, R. D. 867
- Eshelby, J. D.  
See Atkinson, C. 6100
- Esin, A.  
The microplastic strain energy criterion applied to fatigue 1009
- Eskin, I. D.  
Free oscillations of a system with one degree of freedom and an elastic-hysteresis loop of arbitrary form 9447
- Eskin, V. L.  
See Katsev, P. G. 9555
- Esmaili, H.  
Unconfined aquifer characteristics and well flow 3845
- Espinosa, A. F.  
Observations of coupled seismic waves from sonic booms: A short note 4672  
Seismic waves generated by sonic booms: A geoaoustical problem 8170
- Espinosa de los Monteros, I.  
Finite differences in the calculations of strength and natural frequencies of vibration in continuous beams 2403
- Esquillan, N.  
The Olympic Ice Stadium at Grenoble 7905
- Estrig, M. I.  
Pore pressures, consolidation, and electrokinetics 6054
- Essenburg, F.  
See Gulati, S. T. 5954
- Esslinger, M.  
Explanation of the buckling mechanism of thin-walled cylindrical shells 7740
- Esterkin, R. I.  
See Isserlin, A. S. 8965
- Estes, R. H.  
See Lancaster, E. R. 1333
- Estrada, J.  
On the effects of the elimination of a dam: The initial flow phase 3587
- Etievant, C.  
See Chen, F. F. 2876
- Etkin, A. A.  
See Tartakovskii, V. I. 8674

- Etter, R. J.  
Depositional behavior of kaolinite  
in turbulent flow 9099
- Eubank, H. P.  
Single-particle confinement studies  
in a radio-frequency-supplemented  
magnetic mirror 8132
- Eugeni, F.  
Some properties of a conformal  
transformation 9187
- Eustis, R. H.  
See Kessler, R. 2872
- Euvrard, D.  
Asymptotic study of long distance  
flow moving with sonic speed past  
an obstacle: Part 1, Plane flow  
upstream from a shock 7089  
Asymptotic study of long distance  
flow moving with sonic speed past  
an obstacle: Part 2, Two-dimen-  
sional flow behind shock waves 7090  
Asymptotic study of the turbulent  
wake of a transonic wing profile 8822
- Evan-Iwanowski, R. M.  
See Somerset, J. H. 7767
- Evans, A.  
A viscometer for the study of blood 760  
See also Walder, D. N. 1366
- Evans, D. V.  
The effect of surface tension on  
the waves produced by a heaving  
circular cylinder 6347  
The influence of surface tension  
on the reflection of water waves  
by a plane vertical barrier 8833
- Evans, E. P.  
Shrinkage and thermal cracking in  
a reinforced concrete retaining  
wall 2531
- Evans, F. G.  
Bibliography on the physical prop-  
erties of the skeletal system 2982
- Evans, G. T.  
See Sloniewsky, A. R. 1176
- Evdokimov, V. D.  
Investigation of exoelectronic emis-  
sion due to sliding friction 3869  
Internal stresses in reverse sliding  
friction 5721  
Influence of surface-active lubri-  
cants on internal stresses in re-  
versing sliding 5723
- Evensen, D. A.  
Nonlinear vibrations of an infinite-  
ly long cylindrical shell 195  
Circumferentially traveling wave  
flutter of a circular cylindrical  
shell 5602  
Influence of nonlinearities on the  
degenerate vibration modes of a  
square plate 6824
- Eversman, W.  
Transverse vibrations of a clamped  
spinning membrane 173
- Evseenko-Misyurenko, I. V.  
Seminar: Electronic modeling of  
problems of mechanics: Book 1 5789
- Ewertowska-Madej, Z.  
Laboratory tests of shearing resis-  
tance on contact of two soil  
strata 2447
- Ewing, B. B.  
See Dick, R. I. 6225
- Ewing, D. J. F.  
Calculations on the bending of  
rigid/plastic notched bars 6737
- Ewing, J.  
See Le Pichon, X. 9632
- Ewing, M.  
See Latham, G. V. 9123
- Ewins, D. J.  
The effect of detuning upon the  
forced vibrations of bladed disks 6821
- Eykhoff, P.  
Process parameter and state estima-  
tion 8385
- Eyring, C. L.  
See Saperstein, Z. P. 6210
- Ezikashvili, O. S.  
Determination of the forces of fric-  
tion in the case of the helical mo-  
tion of a shaft in a bushing in a  
hydrodynamic regime 9151
- Ezrol, H.  
Photographic apparatus for the  
study of fracture in metals 7840
- ## F
- Faber, E.  
Hundred passenger-hydrofoil-boats  
with high-speed diesel engines in  
operation 3865
- Fabian, V.  
Stochastic approximation of con-  
strained minima 783
- Fabula, A. G.  
The dynamic response of towed  
thermometers 6423
- Fadeenko, Yu. I.  
See Titov, V. M. 8211
- Faeth, G. M.  
Ignition and combustion of mono-  
propellant droplets 3722
- Fagela-Alabastro, E. B.  
Laminar gas jet impinging on an  
infinite liquid surface: Numerical  
finite difference solution involv-  
ing boundary and free streamline  
determinations 3480
- Faggiani, D.  
Resonance effects in room-wall sys-  
tems in the propagation of temper-  
ature waves in buildings 7222
- Fahidy, T. Z.  
See Borth, D. M. 5800
- Fahlgren, C. E.  
Process analog computers 3064
- Fahmy, M. M.  
Optimal control of distributed-  
parameter systems 4895
- Fahy, F. J.  
Some experiments with stiffened  
plates under acoustic excitation 6003
- Fainburd, V. M.  
See Rivkin, S. A. 4197
- Fainshtein, S. M.  
Amplification of sound waves by  
a flux of neutral particles during  
transition radiation in an in-  
homogeneous gas medium 7376
- Fairbairn, J.  
A simple method of obtaining  
creep rates of a thick-walled  
cylinder under internal pressure 112
- Faircloth, J. M., Jr.  
Effect of vibration on heat trans-  
fer for flow normal to a cylinder 9815
- Fairfax, J. P.  
Further investigation of empirical  
equations used in programming  
a psychrometric table on a com-  
puter 2210
- Fairhurst, C.  
See Bonnechere, F. 3297
- Faison, R. W.  
Ratios of steady-state responses to  
various transient responses, both  
having equal maximum excitation  
levels 4119
- Faizullin, I. S.  
Reflected and head waves from  
thin layers in solid three-  
dimensional models 970
- Falb, P. L.  
See Anderson, G. M.  
Zames, G. 2894  
8352
- Falkenhagen, G. L.  
See Lewis, D. W. 1765
- Fallside, F.  
Predictive control using an adaptive  
fast model 1544
- Fan, D.-N.  
Unsteady magnetohydrodynamic  
flow past thin bodies with inwardly  
diffusing magnetic field 1304  
Correct formulation of airfoil prob-  
lems in magnetoaerodynamics 4610  
Establishment of steady hydromag-  
netic flow past slender bodies 6476
- Fan, L. T.  
The discrete maximum principle: A  
study of multistage systems opti-  
mization 5823  
See also Lee, E. S. 4405  
Fox, V. G. 9706
- Fan, W. R. S.  
See Kaldjian, M. J. 4291
- Fand, R. M.  
The formation of calcium-sulfate  
scale on a heated cylinder in cross-  
flow and its removal by acoustical-  
ly induced cavitation 9833
- Fang, T. N.  
On the wave motion and stability  
of dynamic systems with imper-  
fect boundaries 7783
- Fangmeier, R.  
See Pawelski, O. 5173
- Fannelop, T. K.  
Effects of streamwise vortices on  
laminar boundary-layer flow 437  
A method of solving the three-  
dimensional laminar boundary-  
layer equations with application  
to a lifting reentry body 2650

- Fantauzzi, G.  
The relation between the sampling time and stochastic error for the impulsive response of linear time-independent systems 6666  
Linear interpolation in the identification problems 9240
- Farapontova, G. P.  
See Timanovskaya, R. G. 4766
- Fargette, F.  
See Diver, M. 5955
- Farlik, A.  
Deformation mechanics at high speed velocities 262
- Farn, C. L. S.  
Suddenly pressurized elastomagneto-hydrodynamic channel flow 2030  
Transient acoustic fields generated by a body of arbitrary shape 2102
- Farnham, K. A.  
See Conway, H. D. 2315  
Conway, H. D. 5931
- Farnsworth, A. V., Jr.  
Unsteady laminar motion of a Newtonian fluid contained between concentric rotating cylinders 400
- Farris, G. J.  
See Kidd, G. J., Jr. 3491
- Fasol, K. H.  
Frequency plots 9228
- Fattorini, H. O.  
A remark on the "bang-bang" principle for linear control systems in infinite-dimensional space 4871
- Faucompre, G.  
Calculating the economic diameter of pipelines 364
- Fauconneau, G.  
See Marangoni, R. D. 6813
- Faulstich, A. J., Jr.  
See Laura, P. A. 531
- Fauray, M.  
Contribution to the theoretical study of turbines 2021
- Fave, J.  
Deterministic optimal control: Refinement of the gradient method 3078  
Analytical approach of the problem of the accessible domain of the re-entry glider 7360
- Favre, A.  
Transition in wakes in supersonic flow: New observations 5340  
Structure of velocity space-time correlations in a boundary layer 9712
- Fay, J. A.  
A finite-difference solution of similar nonequilibrium boundary layers 1872
- Faye, R.  
See Sebestyen, Gy. 2736
- Fearn, D. G.  
The origin of the plasma in an electromagnetic shock tube 2848
- Fearnough, G. D.  
Fracture mechanics considerations in the Charpy impact test 9556
- Fedorchenko, I. M.  
Factors in the formation of powder particles by the pulverization in a gas flow 4724
- Fedorchenko, V. D.  
Dynamics of three-wave processes in plasmas 2849
- Fedorov, E. D.  
See Strelkov, L. A. 2959
- Fedorov, F. I.  
Theory of elastic waves in crystals 7780
- Fedorov, V. K.  
Investigation of heat transfer in a cross flow of gas over a right-angled wedge 4516
- Fedotov, E. I.  
See Yudaev, B. N. 8946
- Fedrov, V. M.  
Investigation of a linear plasma acceleration in a transverse magnetic field 8141
- Feeser, L. J.  
The simulation of structural and thermal systems via flow graphs 29  
Flow graphs and boundary value problems 5762
- Fehlberg, E.  
Classical fifth-, sixth-, seventh-, and eighth-order Runge-Kutta formulas with stepsize control 2205  
Low-order classical Runge-Kutta formulas with stepsize control and their application to some heat transfer problems 9220
- Fehr, U.  
Instrumental role in the observation of geoaoustical phenomena from artificial sources 681
- Feigin, M. I.  
Dynamic theory of a controlled vibration damping model 6863  
Slippage in dynamic systems with collision interactions 7576  
See also Klimov, V. G. 5839
- Feiler, C. E.  
See Wanhainen, J. P. 1257
- Feinberg, R. M.  
See Camac, M. 3529  
Taylor, R. L. 3530
- Feinstein, D. I.  
See Abbott, B. W. 6896
- Feiveson, A. H.  
The distribution and properties of a weighted sum of chi squares 21
- Fejer, A.  
Study of swirling fluid flows 4344
- Fejer, J. A.  
Guided propagation of Alfvén waves in the magnetosphere 603
- Felbeck, D. K.  
Introduction to strengthening mechanisms 5169
- Felder, J. W.  
See Olson, R. B. 1961
- Felderman, E. J.  
Heat transfer and shear stress in the shock-induced unsteady boundary layer on a flat plate 451
- Feldman, G. A.  
Experiments on the pressure drop created by a sphere settling in a viscous liquid: Part 2, Reynolds numbers from 0.2 to 21,000 1082
- Feldman, K. T., Jr.  
Review of the literature on Sondhauss thermoacoustic phenomena 2911
- Feldman, M. R.  
Natural vibration of plates with step-like variable thickness 8542
- Feldmann, J. W.  
Direct numerical determination of stresses in elastic solids as illustrated by the torsion problem 3120  
Numerical determination of displacement fields of elastic disks 5852
- Feldshtein, Ya. I.  
See Shevchin, A. D. 9881
- Felkel, K.  
Program for the electronic computation of water levels in open channels 789
- Fellers, G. E.  
See Hawkes, I. 8649
- Felsentreger, T. L.  
Classification of lunar satellite orbits 2085  
See also Giacaglia, G. E. O. 7350
- Fenain, M.  
Theoretical study of finite span, wedge-profile compression ramp air-intakes at supersonic speed 1104
- Fendell, F. E.  
Compressible slow viscous flow past a vaporizing droplet 3713  
Laminar natural convection about an isothermally heated sphere at small Grashof number 7242
- Feng, C. C.  
See Feeser, L. J. 29  
Feeser, L. J. 5762  
Wright, P. M. 6843
- Fenn, J. B.  
Molecular beam engineering at intermediate energies 6285
- Fenstermaker, C. A.  
See Smith, J. C. 229
- Fenves, S. J.  
See Mauch, S. P. 8680
- Fenwick, R. C.  
Mechanisms of shear resistance of concrete beams 6170  
See also Paulay, T. 1758
- Fenzl, R. N.  
See Woerner, J. L. 1801
- Feoktistov, V. A.  
Waves in an elastic weakly conducting medium 9464
- Feola, M.  
See Gabola, G. 589
- Ferdinande, V.  
Shock phenomena on a trawler 5703
- Ferencz, Cs.  
Some problems of nonequilibrium plasma flow 5597
- Ferguson, A. M.  
See Conn, J. F. C. 7441
- Ferguson, N.  
Surface and wake flow phenomena of the vortex-excited oscillation of a circular cylinder 1096

- Ferguson, P. M.  
See Victor, D. J.  
Rajagopalan, K. S. 4059  
4269
- Fernandez, F. L.  
See Kubota, T. 1865
- Ferrarese, G.  
The symbolic relation for the mechanics of a shell 5946
- Ferrari, C.  
A simple case of the determination of the hypersonic flow of a dissociating diatomic gas about a slender profile 7118
- Ferrari, R. L.  
The dispersion and attenuation of helicon waves in a cylindrical plasma-filled wave-guide 5567
- Ferri, A.  
A critical review of heterogeneous mixing problems 8776
- Ferris, A. T.  
Free-flight and wind-tunnel studies of deployment of a dynamically and elastically scaled inflatable parawing model 1139
- Ferro, V.  
Energy conversion by means of the Nernst and Ettinghausen effects 1942
- Fersht, S. N.  
See St. Denis, M. 975
- Ferziger, J. H.  
See Chmielewski, R. M.  
Simmons, G. M. 2048  
7253
- Fetter, A. L.  
Superfluid flow in a rotating annulus 1078
- Fettis, H. E.  
Table of modified Bessel functions 9206
- Ffowcs Williams, J. E.  
Shallow water wave generation by unsteady flow 6333  
See also Crighton, D. G. 9053
- Fiala, E.  
Steering of vehicle as a cybernetic problem 1550
- Fialkow, M. N.  
Field line analysis of folded plate structures 6159
- Fidler, R.  
See Der, T. J. 5970
- Field, J. E.  
Fatigue strength of cold-rolled threads 2490
- Field, M. A.  
Combustion of pulverized fuel: Part 7, Isothermal combustion of a suspension of coal particles in plug flow 2831
- Field, W. G.  
Effects of density ratio on sedimentary similitude 1805
- Fielder, F. D.  
Ultrasonic foetal blood flow detector 761
- Fiedler, H. E.  
See Wagnanski, I. 6255
- Fife, P. C.  
Considerations regarding the mathematical basis for Prandtl's boundary layer theory 5378
- Figge, I. E.  
Prediction of fatigue-crack-propagation behavior in panels with simulated rivet forces 280
- Figueiredo, O.  
Critical fluid velocity and power requirement for the startup of a capsule pipeline 1086  
See also Bourne, D. E. 6227
- Figurnov, E. P.  
Discrete analyzer of random processes 3025
- Fila, L. J.  
See Walker, W. F. 1838
- Filarski, R.  
Computation of bending moments in the plate of an orthotropic structure with the aid of general influence zone graphs for a single panel 1642
- Filatov, V. M.  
Accumulation of damage in the case of thermal fatigue 685  
See also Serensen, S. V. 2484
- Filimon, I.  
See Avram, C. 3404
- Filimonov, Yu. M.  
Optimal control of a mathematical pendulum 4901  
See also Bondarenko, V. I. 7559
- Filipczynski, L.  
Visualizing internal structures of the eye by means of ultrasonics 9070
- Filippi, P.  
A study of a problem of inversion of the diffraction of a scalar wave 4676
- Filippov, G. A.  
Analysis of the operation of turbine stages at low  $u/c_0$  ratios 5442
- Filippov, O. K.  
High-temperature black body for the far infrared part of the spectrum 3701
- Filko, G. S.  
See Biderman, V. L. 110
- Filmer, D. L.  
See Cannon, J. R. 4825
- Filshinskii, L. A.  
Biperiodical problem in the theory of a circular closed cylindrical shell 131  
Doubly periodic problem in the theory of a circular closed cylindrical shell 1580  
See also Grigolyuk, E. I. 6768
- Finch, H. L.  
A computer program for calculating external thermal-radiation heat loads and temperatures of spacecraft orbiting the planets or the Moon 3809
- Findlay, G. E.  
Applying the shakedown concept to pressure vessel design 1046
- Findley, W. N.  
Hydrostatic creep of solid plastics 878
- Fink, M. P.  
Full-scale wind-tunnel investigation of static longitudinal and lateral characteristics of a light twin-engine airplane 7342  
Full-scale investigation of the aerodynamic characteristics of a sailing of aspect ratio 5.9 8819  
See also Parlett, L. P. 6324
- Finkelberg, V. M.  
Wave propagation in a random medium: The correlation group method 465
- Finkelshtein, R. M.  
See Petrov, V. I. 193
- Finn, R.  
On the stationary solutions of the Navier-Stokes equations in two dimensions 1084
- Finnie, I.  
See Foster, J. D. 5652
- Fiorino, T. D.  
Shoulder pressures for slender cone-afterbody combinations in hypersonic flow 7101
- Firmin, M. C. P.  
The pressure distribution at zero lift on a slender delta wing at transonic speeds 2694
- Fischer, F. J.  
Stress diffusion from axially loaded stiffeners into cylindrical shells 6770
- Fischer, F. W.  
Experimental investigation of the current density distribution in a simulated MHD generator 2058
- Fischer, G. R.  
See Ostertag, W. 2804
- Fishbein, B. D.  
Method of calculating the influence of humid, atmospheric air on the characteristics of a turbofan engine 2837
- Fisher, J. W.  
Tests of bolted butt splices 7913  
See also Allan, R. N. 2571  
Kormanik, R. 6202
- Fisher, S. S.  
Flux and speed distributions of molecular beams after scattering by metal surfaces 5372
- Fishman, F. J.  
Unsteady flow in the shock-tube magnetohydrodynamic generator 8994
- Fistedis, S. H.  
See Sorensen, H. C. 7364
- Fiszdon, W.  
Fluid dynamics transactions: Vol. 3 2704
- Fitch, J. R.  
The buckling and postbuckling behavior of spherical caps under concentrated load 4104
- Fitzer, E.  
Thermophysical properties of materials 5653



- Fitzgerald, E. A.  
The dynamic response of linearly viscoelastic cylindrical shells to periodic or transient loading 7770
- Fitzgerald, J. E.  
Analysis and design of solid propellant grains 9327
- Fitzpatrick, J. A.  
Strength in bending and diagonal tension of hollow tile beams 124
- Fix, G.  
Higher-order Rayleigh-Ritz approximations 6624
- Flaherty, F. T., Jr.  
Transient resonance of an ideal string under a load moving with varying speed 5988
- Flannelly, W. G.  
A nonfluid velocity damper 5099
- Flatley, T. W.  
Attitude stability of a class of partially flexible spinning satellites 9042
- Flatt, W.  
Practical application of various pneumatic conveying systems 8214
- Fleischli, G.  
See Bellville, J. W. 5834
- Fleishman, N. P.  
Development of the boundary-value problem for plates with reinforced edges 3183  
Effect of a stiffening rib on the flexure of a circular plate by concentrated moments 8476
- Fleming, D. P.  
Stability analysis for unloaded externally pressurized gas-lubricated bearings with journal rotation 3881  
See also Schuller, F. T. 2171  
Cunningham, R. E. 7457  
Cunningham, R. E. 7458  
Schuller, F. T. 8293  
Cunningham, R. E. 9152
- Fleming, R. J.  
See Reddy, K. V. S. 7402
- Fleming, W. H.  
Optimal control of partially observable diffusions 8381
- Flesch, G.  
See Marchal, M. 8856
- Fletcher, E. A.  
Early supersonic combustion studies at NACA and NASA 7304
- Fletcher, J. L.  
See Loeb, M. 4813
- Fletcher, R. D.  
Suspensoid stratification in the atmosphere 5697
- Fleyshman, N. P.  
Flexure of a thin inhomogeneous plate with a circular support stiffening rib 1647
- Flinders, R. F.  
See Procter, E. 7846
- Flintoff, J. L.  
See Bradshaw, P. 4660
- Floberg, L.  
On the ball flowmeter and the ball viscosimeter 6240
- Subcavity pressures and number of oil streamers in cavitation regions with special reference to the infinite journal bearing 8284
- Florence, A.  
Dynamic plastic flow buckling of short cylindrical shells due to impulsive loading 6783
- Florent, P.  
Utilization of hypotheses concerning the kinematic turbulent viscosity coefficient in the study of subsonic turbulent jets 7965  
On a nondirectional sounding device permitting measurement of mean velocities in turbulent flow 8814
- Florentsev, M. M.  
Effect of circulation velocity on radiation conversion of an organic coolant at high temperature 3751
- Florus, H. J.  
See Steinbrenner, H. 1504
- Flugge, W.  
Axisymmetric apex loadings on conical shells 1634  
Stresses in shells 8459
- Flugge-Lotz, I.  
See Reyhner, T. A. 2668  
Plotkin, A. 6287  
Hales, K. A. 6687
- Flynn, D. R.  
Heat flow in a right circular cylinder with internal heat generation: Applications to the determination of thermal conductivity 1205  
Measurements of the thermal conductivity and electrical resistivity of platinum from 100 to 900°C 1376
- Foa, J. V.  
Power demands of tubeflight vehicles 7346
- Fogg, B.  
Theoretical analysis for the redrawing of cylindrical cups through conical dies without pressure sleeves 261
- Fokin, A. G.  
Elastic moduli of materials with an oriented texture 5875
- Fokin, V. P.  
Solution of the Lagrange problem for a gas-liquid-solid system, taking the forces of resistance to displacement of the solid into account 2023
- Folias, E. S.  
A circumferential crack in a pressurized cylindrical shell 4224
- Folse, R. F.  
High-amplitude torsional oscillations of a disk in a viscous fluid 9652
- Fomin, L. M.  
Relationship between the spectra of flow velocity and the pressure or density of water in the ocean 2969
- Fomin, S. V.  
A method of Fourier transformation for functional differential equations 5768
- Fomin, V. M.  
Approximate solution of vortex equations in the hodograph plane 1074
- Fomin, V. V.  
Hydro-erosion resistance of austenitic chromium-manganese steels alloyed with nitrogen and other elements 6121
- Fonade, C.  
See Dat, J. 1119
- Fonagy, K.  
See Solymosi, F. 7293
- Fong, J. T.  
See Smith, J. C. 7795
- Food, T. R.  
See Hesselgreaves, J. E. 3621
- Forgan, R. R. D.  
See Nicholas, M. 5716
- Forman, I.  
Simulating of ejectors 420
- Forman, R. G.  
Study of fatigue crack initiation from flaws using fracture mechanics theory 1013
- Formisano, V.  
Small amplitude waves in high  $\beta$  plasmas 9872
- Forray, M. J.  
Variational calculus in science and engineering 2188
- Forrestal, M. J.  
Response of an elastic cylindrical shell to a transverse, acoustic pulse 2430  
See also Alzheimer, W. E. 6032
- Forrester, K.  
Interim report on Gladesville bridge arch deflections 2542
- Forsberg, K.  
Axisymmetric and beam-type vibrations of thin cylindrical shells 8544
- Forsching, H.  
Natural frequencies of isotropic cantilever semi-elliptical and semi-circular plates 7768
- Forster, H.  
Endurance at statistically distributed stresses 6956
- Forster, H.-J.  
Statics friction: Technical mechanics, Vol. 1 7568
- Forster, K.  
Case study of the Lax method 8320
- Fortmann, T.  
See Kleinman, D. L. 8369
- Fosdick, L. D.  
A special case of the Filon quadrature formula 1473
- Fosdick, R. L.  
On the displacement boundary-value problem of static linear elasticity theory 1582  
Extremum principles in heat conduction for rigid heat conductors 7225
- Foss, J. F.  
Secondary flow effects in a bounded rectangular jet 5317
- Fosse, C.  
See Deffet, L. 6092
- Foster, A. W.  
See Andrews, D. G. 8932

- Foster, E. T., Jr.  
Semilinear random vibrations in discrete systems 5104
- Foster, J. D.  
Method for measuring small thermal expansion with a single frequency helium-neon laser 5652
- Foster, J. M.  
Bubble trajectories and equilibrium levels in vibrated liquid columns 2945
- Foster, R.  
Supersonic flow past a wedge with a flame at its apex 1830
- Foster, T. D.  
Effect of boundary conditions on the onset of convection 6391
- Foulard, C.  
A method for the determination of the parameters for a compensator 6652
- Fountain, L. S.  
Experimental evaluation of the total-reflection method of determining ultrasonic velocity 1365
- Fountain, R. S.  
Specifications and design relations 6108
- Fourney, M. E.  
Aerosol size and velocity determination via holography 7408  
Application of holography to photoelasticity 9533
- Fourney, W. L.  
Normal modes and natural frequencies of combined structures 9404
- Fowkes, N. D.  
A singular perturbation method: Part I; Part 2 2998
- Fowle, A. A.  
Computer program to predict heat transfer through glass 8900
- Fowler, H. S.  
The distribution and stability of flow in a rotating channel 2732
- Fowles, R.  
Dynamic compression of quartz 240  
See also White, R. W. 4656
- Fowles, W. W.  
See Pfeffer, R. L. 3579
- Fowlkes, C. W.  
Strain analysis by means of an imbedded moire grid 3366
- Fox, C. H., Jr.  
Prediction of lift and drag for slender sharp-edge delta wings in ground proximity 5415
- Fox, D. W.  
See Bazley, N. W. 186
- Fox, E. N.  
The existence of exact solutions in limit analysis for homogeneous isotropic plates of rigid perfectly-plastic material 6773
- Fox, H.  
A review of problems in the non-reacting turbulent far wake 9683  
See also Zakkay, V. 461  
Carr, L. W. 6295
- Fox, H. W., Jr.  
An analog computer study of the low-frequency flow dynamics of two nuclear-rocket cold-flow engine systems 9859
- Fox, J.  
Space correlation measurements in the fluctuating turbulent wakes behind projectiles 2641
- Fox, J. A.  
Experimental investigation of the stability of Hagen-Poiseuille flow 2685  
Unsteady unconfined flow to gravity wells 5667
- Fox, M.  
See Edney, K. 2777
- Fox, M. J.  
A technique to determine evaporation from dry stream beds 8246
- Fox, N.  
On the finite deformation of inhomogeneous elastic materials 2291  
On plastic strain 5897  
Generalized thermoelasticity 9945
- Fox, R. L.  
Developments in structural analysis by direct energy minimization 4258  
See also Schmit, L. A. 147
- Fox, V. G.  
Methods for solving the boundary layer equations for moving continuous flat surfaces with suction and injection 9706
- Foxwell, V. M., Jr.  
How to use standard vibration machines for low-frequency fatigue testing 1027
- Frackiewicz, H.  
A plane problem of the theory of elasticity for media with a discrete lattice structure 84  
Analysis of natural vibration of tower crane: Part I 4141
- Fradlin, B. N.  
Development of a method of integro-differential equations in the theory of plates and shells 2372
- Fracijs de Veubeke, B.  
An equilibrium model for plate bending 2357
- Fraenkel, L. E.  
On Benjamin's theory of conjugate vortex flows 3485
- Fraint, M. Ya.  
See Gabbasov, R. F. 9358
- Franaszek, P. A.  
On sampled data systems with cyclically varying rates 811
- France, D. M.  
See Trezek, G. J. 3825
- Francey, J. L. A.  
Helicon waves in nonresistive cylindrical and spherical plasmas 6466
- Francis, P. H.  
On the stresses near an oblique elliptical aperture in a large plate 98  
Parametric excitation of a nonhomogeneous Bernoulli-Euler beam 1688  
Effect of temperature gradients on the propagation of elastoplastic waves 5123
- Francis, S. H.  
Wave coupling across a shock wave in a fully ionized gas 4587
- Franck, S.  
See Steingroever, E. 4797
- Franco, J. J.  
Effects of water temperature on bed-load movement 3473
- Francois, C.  
The Navier-Stokes equations close to a wall: Application to the laminar separation on a flat plate 4410  
Asymptotic study of the Navier-Stokes equations for the laminar movements of an incompressible viscous fluid 8761
- Frangos, W. T.  
See Brace, W. F. 5671
- Frank, P. M.  
Complete prediction for continuous-action control loops with dead time 5798
- Franke, H.-W.  
See Loos, W. 5042
- Franke, P.-G.  
Flow measurements in flumes by means of a local constriction: Parts 1, 2, 3, and 4 7037
- Frankel, N. A.  
Heat and mass transfer from small spheres and cylinders freely suspended in shear flow 8066
- Frankenthal, S.  
Performance of thermochemically driven MHD converters 6477
- Frank-Kamenetskii, D. A.  
See Smirnov, Yu. N. 4913
- Franklin, E. R.  
Hardness distribution in compacted foundry sand 3831
- Franklin, G. F.  
See Frederick, D. K. 854  
Bullock, T. E. 5821
- Franklin, H. G.  
Corrugated shells of revolution 905
- Franklin, J. N.  
Matrix theory 3  
Numerical analysis of an elliptic-parabolic partial differential equation 9193
- Franks, W. J.  
Axially symmetric bodies having a minimum pressure variation with Mach number 7164
- Franzblau, M. C.  
See Bossler, F. C. 6143
- Franze, K.  
An instrument for measuring the torque of miniature spur gears 5257
- Fraser, J. T.  
See Suckling, J. H. 5135
- Frass, F.  
Phenomena occurring on the cooling surface when the temperature drops below the dew point of the flue gases 8934
- Frater, K. R.  
Drag on a sphere oscillating in an elastico-viscous fluid 1911  
Drag on a circular cylinder oscillating in an elastico-viscous fluid 9760

- Freake, G. A.  
Symposium: Behavior of viscous fluids, Part I: Flow and mixing of viscous fluids, (II) Design of pipelines for non-Newtonian liquids 362
- Freche, J. C.  
See Klima, S. J. 277
- Frederick, D. K.  
Design of piecewise-linear switching functions for relay control systems 854
- Frederking, T. H. K.  
Maximum low temperature dissipation rates of single horizontal cylinders in liquid helium II 4508
- Fredrickson, A. G.  
See Picot, J. J. C. 1950
- Freedman, H. W.  
Estimating earthquake magnitude 708  
See also Tucker, W. 5676
- Freedman, M.  
Logarithmic variation criteria for the stability of systems with time-varying gains 5805
- Freeman, D. C., Jr.  
Low subsonic flight and force investigation of a supersonic transport model with a variable-sweep wing 6482  
See also Pariett, L. P. 6324  
Fink, M. P. 7342
- Freeman, E. A.  
Characterization of nonlinearity for transient processes: Its evaluation and application 3038  
Stability of nonlinear oscillations predicted by harmonic-linearization technique 3945
- Freeman, N. C.  
On the solution of the Boltzmann equation for an unsteady cylindrically symmetric expansion of a monatomic gas into a vacuum 4392
- Freeman, N. J.  
See Keer, L. M. 7611
- Freeman, R. A.  
Variable-energy blast waves 9676
- Freiesleben, H. C.  
Navigation and traffic control of ships and aircraft by means of satellites: Part 2, Position fixing by and from satellites by range rate measurement 5612
- Freihart, G.  
See Freihart, I. 5961
- Freihart, I.  
Method for the approximate determination of the buckling height of movable frame struts 5961
- Freitag, W.  
See Mehmel, A. 6990
- Frenkina, I. P.  
The propagation of elastic waves in a stepped rod with concentrated masses 6031
- Fresin, B. S.  
Application of hypotheses of summing fatigue damage to the accelerated evaluation of fatigue endurance 8641
- Freudenstein, F.  
The basic concepts of Polya's theory of enumeration, with application to the structural classification of mechanisms 2562  
Type determination of skew four-bar mechanisms 8717
- Freudenthal, A. M.  
Combination of the theories of elasticity, plasticity and viscosity in studying the safety of structures 2523  
Deformation and failure analysis of grains 7627
- Freund, J.  
A study of the coefficients of linear head-loss and heat transfer in a fixed bed of shots: Part 1 9110
- Freund, L. B.  
Waves in a semi-infinite plate in smooth contact with a harmonically disturbed half-space 5119  
Diffraction of a plane pulse by a closed crack at the interface of elastic solids 7787  
Diffraction of a plane pulse by a semi-infinite barrier at a fluid-solid interface 7792
- Frewer, H.  
The design of pressurized water nuclear power stations 4578
- Friberg, E. G.  
Pressure distribution on a cone-cylinder-flare body at Mach 14 in the presence of flow separation 1109  
Pressure distribution on a 5.6° blunt cone at Mach 14 5329
- Fricke, F. R.  
Pressure fluctuations in a separated flow region 6506
- Fricke, W.  
Precession and galactic rotation derived from fundamental proper motions of distant stars 2073
- Fricke, W. G., Jr.  
Importance of fretting in vibration failures of stranded conductors 278
- Fridman, A. M.  
See Mikhailovskii, A. B. 4592
- Fridman, Ya. B.  
Evaluation of materials in accordance with their capability of resisting rupture 3325  
See also Drozdovskii, B. A. 3327  
Miklyaev, P. G. 4234
- Fried, I.  
Gradient methods for finite-element eigenproblems 9222  
More on gradient iterative methods in finite-element analysis 9223  
See also Argyris, J. H. 4256  
Argyris, J. H. 5921  
Argyris, J. H. 7600
- Friedland, B.  
On solutions of the Riccati equation in optimization problems 25
- Friedman, A.  
Singular perturbations for partial differential equations 6614
- Friedman, L. I.  
Adaptability of an unevenly heated rotating disk 5639
- Friedman, M. P.  
See Callegari, A. J. 7127  
Carterette, E. C. 10001
- Friedmann, M.  
Laminar flow in a pipe at low and moderate Reynolds numbers 7069
- Friedmann, P.  
Supersonic nonlinear flutter of orthotropic or isotropic panels with "arbitrary" flow direction 3798
- Friehe, C. A.  
Deviations from the cosine law for yawed cylindrical anemometer sensors 6358
- Frieman, E. A.  
See Rutherford, P. H. 2045
- Friemann, H.  
See Kloppel, K. 4060
- Frik, M.  
Time-optimal control of adjustment processes of a gyrocompass 2274
- Frisch, B.  
See Dawohl, W. 8280
- Frisch, I. T.  
An algorithm for vertex-pair connectivity 2196
- Frishman, F.  
Investigation of the interaction of two rectangular parallel jets 423
- Frisk, B.  
See Thomann, H. 1246
- Froehrib, D. A.  
The optimum design of five-ply viscoelastic isolation flexures for point-inertia loading 7775
- Frolov, S. D.  
See Mikhailenko, L. I. 3650
- Frost, A.  
See Curwen, P. W. 8290
- Frost, V. A.  
Acceleration of molecular transport processes in a turbulent flow 2678
- Frost, W.  
Solution of heat transfer in a fin with combined convection and radiative interaction between the fin and the surrounding surfaces 7255  
See also Dzakowic, G. S. 9835
- Fruitet, L.  
Optimization of a system of grillage beams 9566
- Fruman, D.  
See Bellevaux, C. 1068
- Frumin, V. L.  
See Voloshin, N. V. 9146
- Fry, W. J.  
Ultrasonic visualization system employing new scanning and presentation methods 10007
- Fryba, L.  
Static and dynamic study of a six-span continuous lattice beam 199  
Impacts of two-axle system traversing a beam 6016
- Fryling, G. R.  
Combustion engineering: A reference book on fuel burning and steam generation, revised edition 7305

- Frynta, V.**  
The influence of pitching during the passage of an airplane through a gust on the acceleration of its center of gravity 1893
- Fu, C. C.**  
Stability of motion of impact tools 2287
- Fu, K. S.**  
An optimum finite sequential procedure for feature selection and pattern classification 856
- Fuchs, N. A.**  
*See Kirsch, A. A.* 6251
- Fuchssteiner, W.**  
The theme: Torsion or shear 6989
- Fucks, W.**  
Interactions of an electric arc plasma with transverse magnetic fields and gas flows 1289
- Fuehrer, H. R.**  
Multichannel electronic counter chronograph for determining detonation velocities in explosives 2833
- Fufaev, N. A.**  
*See Neimark, Yu. I.* 3951
- Fugelso, L. E.**  
Elastic free-field motion due to nuclear air blast 7797
- Fujii, H.**  
*See Tatsumoto, E.* 1029
- Fujii, K.**  
Stability analysis of nonlinear control systems by Popov criterion 8343
- Fujii, S.**  
On the optimizing control by a continuous correlation method 4892  
On the optimizing control by an improved peak-holding method 7553  
The cascade subjected to inlet distortions 9785
- Fujii, T.**  
Minimum-weight design of structures based on buckling strength and plastic collapse: Part 3, An improved theory on postbuckling strength of plate girders in shear 4115
- Fujisawa, N.**  
*See Itoh, S.* 8128
- Fujisawa, T.**  
An iterative procedure for solving the time-optimal regulator problem 8370
- Fujita, H.**  
Measurement of Reynolds stress by a single rotated hot wire anemometer 4466  
*See also Furuya, Y.* 5666
- Fujita, K.**  
*See Hamada, M.* 1632
- Fujita, T.**  
Split of a thunderstorm into anticyclonic and cyclonic storms and their motion as determined from numerical model experiments 4767  
*See also Tsuchiya, K.* 7431
- Fujita, Y.**  
*See Hasegawa, S.* 1965  
*See Hasegawa, S.* 3662
- Fujiwara, H.**  
*See Saito, A.* 7844
- Fujiwara, M.**  
*See Ichimura, I.* 7439
- Fujiwara, N.**  
*See Murotsu, Y.* 6866
- Fujiwara, T.**  
*See Aoki, S.* 5729
- Fukada, E.**  
Non-Newtonian viscosity and dynamic viscoelasticity of blood during coagulation 757  
Piezoelectric effect in blood vessel walls 8305
- Fukuda, M.**  
On the nonuniformity in fluidized bed 2129  
*See also Sawaragi, Y.* 271
- Fukui, S.**  
Some experimental results on heat transfer characteristic of air cooled heat exchangers for air conditioning devices 2798
- Fukumoto, Y.**  
*See Okamura, Y.* 2313  
*See Usami, T.* 8652
- Fukuoka, H.**  
Infinitesimal plane waves in elastic-plastic tubes under combined tension-torsion loads 6889
- Fukuzawa, K.**  
Collapse of metal plates by high speed liquid jets 3466
- Fulbrook, D. J.**  
*See Smith, D. J. L.* 6452
- Fuller, A. L.**  
Thermonuclear detonation wave structure 6464
- Fuller, F. B.**  
*See Lomax, H.* 7119
- Fulrath, R. M.**  
*See Bertolotti, R. L.* 4219
- Funabashi, H.**  
On the rotational conditions of the cranks and the pressure angles of the spatial four-bar mechanisms 9603  
*See also Ogawa, K.* 348  
*See Ogawa, K.* 4297
- Funabashi, K.**  
Distribution of skewing on rollers in needle roller bearings 741
- Fung, Ne. T.**  
*See Volnin, B. A.* 8583
- Fungaroli, A. A.**  
*See Remson, I.* 6550
- Funk, J. E.**  
*See Drake, R. M., Jr.* 5506
- Furman, A. V.**  
Analytical investigation of heated bodies with consideration of radiation 5497
- Furman, N. I.**  
*See Shcherban, A. N.* 4500
- Fursov, A. P.**  
Investigation of the emission of heat in small-scale airjet combustion chambers for  $a_T = 0.6 - 1.5$  8961
- Furukawa, I.**  
*See Aoki, S.* 5729
- Furutsu, K.**  
Application of the methods of quantum mechanics in the statistical theory of waves in a fluctuating medium 219
- Furuya, Y.**  
An experimental investigation of the skewed boundary layer on a rotating body: Part 2 444  
A simple method for estimating the equivalent sand roughness 5666
- Fust, H. D.**  
*See Vogt, H. L.* 5730
- Futtermann, S. R.**  
Comparative evaluation of maximum stresses at abrupt change in wall thickness of pressurized cylinder 4279
- Fuzy, J.**  
*See Nagy, B.* 4066

## G

- Gaash, Y.**  
*See Tiroshi, I.* 3059
- Gabarashvili, T. G.**  
Origination of the ice phase in supercooled water under the influence of electrically charged crystals of cholesterol and naphthalene 8037
- Gabasov, R.**  
Necessary optimality conditions in time-lag systems 5826
- Gabaudan, J.**  
Development of the thermodynamic method 1915
- Gabbasov, R. F.**  
Calculation of shells of revolution from the limiting equilibrium 9358
- Gabola, G.**  
On the optimization of the operation variables of a controlled-ignition engine for motor vehicles, aimed at reducing the emission of contaminants 589
- Gabrielsen, B. L.**  
Stochastic models for viscoelastic materials 6732
- Gachon, H.**  
Stability of plate girders with symmetrical flanges 4096
- Gadd, G. E.**  
A new turbulent friction formulation based on a re-appraisal of Hughes' results 7443
- Gadish, Y.**  
*See Karmeli, D.* 4845
- Gaede, K.-W.**  
*See Heinhold, J.* 9190
- Gage, K. S.**  
The stability of thermally stratified plane Poiseuille flow 4351
- Gaggioli, R. A.**  
*See Moran, M. J.* 2659



- Gagne, R. E.  
Techniques for the design of linear digital simulations 5813
- Gaidarov, Sh. A.  
Influence of heater diameter on critical heat flow during boiling 563
- Gaillard, P.  
See Barailler, L. 6337
- Gainer, J. L.  
See Navari, R. M. 7472
- Gainer, T. G.  
Investigation of opening characteristics of an all-flexible parawing 6489
- Gaines, B. R.  
Training the human adaptive controller 2272
- Gainullina, S. Kh.  
Calculation of sandwich beams of reduced weight 8457
- Gaiskii, V. N.  
On the similarity of earthquake series, the relationship between them, and the "tendency" toward periodicity 1384
- Gajendar, N.  
Circular plates partially resting on an elastic foundation 901  
Free vibrations of a circular plate with attached concentrated mass, spring and dashpot 2406  
Forced vibrations of a composite circular plate 6828  
Free vibrations of partially clamped rectangular plates 6829
- Gajewski, P.  
Thermodynamic steady state analysis of thermoelectrochemical solid electrolyte converter 5556
- Gajl, B.  
Pressure acting on the oscillating surface of an airfoil in nonlinear supersonic potential flow 5418
- Gakhov, F. D.  
Contemporary problems in the theory of boundary-value problems for analytic functions and singular integral equations 8322
- Gal (Friedman), S.  
Problems associated with naval mining 6628
- Galampos, T. V.  
See Korn, A. 2538
- Galapats, B. P.  
See Burak, Ya. I. 7397
- Galechyan, G. A.  
See Abramova, K. B. 3779
- Galerie, R.  
Error analysis in clock trajectory graphy 7349
- Galery, L.  
Natural and forced vibrations of a monolithic mass on elastic supports 5085
- Galimov, N. K.  
Flexure of sandwich circular plates under the action of nonuniform transverse loads 8478  
Variation of the state of stress in the nonlinear theory of shallow sandwich shells 8479
- Method for solving the equations of shallow sandwich shells 8480  
Variational methods in the nonlinear theory of shallow shells 8487
- Galimov, Sh. K.  
Stability of a rectangular built-in plate in the case of nonuniform asymmetric heating 9090
- Galini, L. A.  
Contact problem of elastoplasticity for plates 911  
Deformation of an orthotropic viscoelastic body under plane-problem conditions 2324  
Effect of a vibrating load on a polymer material 7635
- Galinsh, A. K.  
Calculation of plates and shells by the improved theories 9361
- Galitskii, V. G.  
Deep compaction of slumping soils by cable drilling rigs 5146
- Gallian, J.  
See Gabaudan, J. 1915
- Gallier, P. W.  
Self-tuning computer adapts DDC algorithms 2240
- Galloway, T. R.  
Thermal and material transfer from spheres: Prediction of local transport 1998
- Gallyamov, T. K.  
Stability of a conical shell reinforced by discretely situated stiffening ribs under the action of external pressure 9376
- Galos, M.  
Limit load of expanded multilayer vessels 7898
- Galperin, L. G.  
See Baskakev, A. P. 2786
- Galvin, C. J., Jr.  
Breaker-type classification on three laboratory beaches 2968
- Gambhir, R. S.  
Heat conduction through CO<sub>2</sub> and N<sub>2</sub>O gases 1192  
Thermal conductivity of rare gases, deuterium and air 1200
- Gamble, J. D.  
A mathematical model for calculating the flight dynamics of a general parachute-payload system 4629
- Gamburtsev, A. G.  
Attenuation and dispersion of seismic body waves in the low velocity zone 2962
- Gandhi, J. M.  
See Gambhir, R. S. 1200  
Saxena, S. C. 1954
- Gane, N.  
Microdeformation of solids 297
- Ganeeva, M. S.  
Small flexures of a nonlinearly elastic rectangular plate with mixed boundary conditions 7688  
See also Galimov, Sh. K. 9090
- Ganesan, T. P.  
Direct rotation contribution method for the analysis of continuous beam and Vierendeel structures 9577
- Gangadharaiiah, T.  
See Lakshmana Rao, N. S. 5380
- Gangi, A. F.  
Wide-band transducer for seismic modeling 4756
- Gangoli, S. G.  
Effect of ultrasonics on photographic films 7384
- Ganiev, N. S.  
Theory of sandwich shallow shells of nonsymmetric structure 8477
- Ganiev, R. F.  
On measuring spatial oscillations of a solid body 217  
Nonlinear resonance during three-dimensional oscillation of a solid body 9407
- Ganiev, V. S.  
Stability of sandwich plates of asymmetric structure in the case of a nonlinear law of elasticity 8516  
Stability of sandwich shells in the case of a nonlinear law of elasticity 8522
- Ganowicz, R.  
Some problems of Reissner's theory and of the three-layer plates 5925
- Gansslen, F.  
Methods for two-level minimization of systems of combinational switching functions 6671
- Gantmacher, F. R.  
Oscillation matrices: Oscillation kernels and small vibrations of mechanical systems 4118
- Gapharov, K.  
Estimation of deeply laid foundation wall accounting for variation of soil deformation modulus in the base 8588
- Gappoev, T. T.  
Balancing the forces of inertia and their moments in a crankshaft-connecting rod mechanism 4128
- Garber, E. D.  
On frequency criteria of absence of periodic conditions 1489
- Garber, S. R.  
Level sensor for a dielectric liquid 1936
- Garceau, J.  
Effect of diameter of agitator and size of baffles on the degree of mixing and power consumption under steady conditions 3493
- Garcia, D. J.  
See Martinez, J. L. 748
- Garcia, W. J., Jr.  
An experimental study of breaking-wave pressures 4435
- Gardner, J. A.  
Effects of a dynamic gas on breakdown potential 613
- Gardner, M. B.  
Distance estimation of 0° or apparent 0°-oriented speech signals in anechoic space 6597

- Gardner, S.  
Cross-spectral density of the random pressure field on a recessed plane baffle 6520  
Cross-spectral density of the random pressure field above an infinite plane baffle 8191
- Gardonyi, Z.  
See Kollar, L. 4107  
Kollar, L. 5972
- Gardzilewicz, A.  
Stagnation temperature measurement in a nozzle flow of steam with condensation 529
- Garf, M. E.  
On the design of fatigue testing machines 3352
- Garg, H. P.  
Design data for direct solar utilization devices: Part 1, System data 3857
- Garg, S. K.  
Spherical elastic-plastic waves 6041  
Numerical solutions for spherical elastic-plastic wave propagation 6888
- Garkisch, H.-D.  
Experimental investigation of the buckling behavior of circular cylindrical shells with eccentric longitudinal stiffeners 3211
- Garkusha, N. G.  
Investigation of combined oscillations of cables and hoisting apparatus 3228
- Garlid, K. L.  
See Maurer, C. J. 3044
- Garner, H. C.  
Some remarks on vortex drag and its spanwise distribution in incompressible flow 2700  
Comparative theoretical calculations of forces on oscillating wings through the transonic speed range 7155  
See also Lehrian, D. E. 2066
- Garnet, H.  
See Crouzet-Pascal, J. 6890
- Garnier, F.  
Elements of the theory for the solution of certain optimization problems by mathematical models 833  
Elements of the theory for solving certain optimization problems with examples 3987
- Garrard, R. M.  
Frame constant matrices 314
- Garrard, W. L.  
An approach to sub-optimal feedback control of nonlinear systems 1541  
On the suppression of limit-cycle oscillations 6655
- Garrett, L. B.  
A modified method of integral relations approach to the blunt-body equilibrium air flow field, including comparisons with inverse solutions 9671
- Garrett, R. E.  
Optimal synthesis of randomly generated linkages 1764
- Garrett, R. L.  
Vapor-liquid separation at supersonic velocities 5325
- Garrett, W. D.  
The influence of monomolecular surface films on the production of condensation nuclei from bubbled seawater 2800
- Garrison, G. W.  
Electrical conductivity of a seeded nitrogen plasma 6479
- Garrison, R. L.  
See Morris, J. C. 2052
- Gartner, J. R.  
See Milacic, V. R. 6922
- Garza, L. R.  
See Dodge, F. T. 8846
- Gashko, A. L.  
See Binkevich, E. V. 9377
- Gasirowski, K.  
The use of propagation formulas to calculate minimum chimney heights with respects to their environment 8213
- Gasparyan, S. A.  
Investigation of residual strain during fatigue testing of specimens with a complex stress system 4232
- Gaster, M.  
The development of three-dimensional wave-packets in unbounded parallel flows 3505
- Gates, D. J.  
See Francey, J. L. A. 6466
- Gates, W. D.  
Vibrating angular rate sensor may threaten the gyroscope 2285
- Gatewood, B. E.  
Inelastic analysis with sequence application of load and temperature and changing material properties 118
- Gatzke, H.  
Properties of a bypassed compressor cascade with flow separation 483
- Gaudu, R.  
See Thirriot, C. 469
- Gaugh, W. J.  
See Holbeck, H. J. 6019
- Gault, J. D.  
Low altitude atmospheric turbulence analysis method 2973
- Gauvin, W. H.  
See Clamen, A. 2811  
Kubaneck, G. R. 4522  
Clamen, A. 4553  
Kubaneck, G. R. 9005
- Gavelya, S. P.  
The distribution of stress in a movably clamped hyperbolic shell with an opening 5938
- Gaviglio, J.  
See Favre, A. 5340  
Favre, A. 9712
- Gavrish, N. P.  
Stress concentration about an elliptic hole in a plate of viscoelastic-fiber-reinforced material 7628
- Gay, B.  
Heat transfer on the shell-side of a cylindrical shell-and-tube heat exchanger fitted with segmental baffles: Part 1, Bundle and zonal average heat transfer coefficients 2795
- Gaydon, A. G.  
The use of shock tubes for studying fundamental combustion processes 8968
- Gaylord, E. H.  
See McVinnie, W. W. 3204
- Gebel, I. D.  
Transfer of location roundness errors to ground surfaces 2471
- Gebhart, B.  
The leading edge effect in transient natural convection from a vertical plate 1218  
See also Dring, R. P. 7237  
Hieber, C. A. 8067
- Gebhardt, H.  
Adapting the exhaust-driven supercharger to the diesel engine 6449
- Geddes, L. A.  
Proceedings of the annual conference on engineering in medicine and biology: 1968 7461
- Gedeon, L.  
Analysis of cylindrical reactor fuel pin for clad stress caused by fission gases 9291
- Gedney, R. T.  
Inviscid flow analysis of two parallel slot jets impinging normally on a surface 5285
- Gee-Clough, D.  
An improved self-damped pneumatic isolator 9451
- Gehring, R. W.  
See Gatewood, B. E. 118
- Geier, B.  
See Appel, H. 4089
- Geiger, G. E.  
See Tien, R. H. 1233
- Geleedst, M.  
Large area wave-load meter 5694
- Geleji, A.  
Determination of the optimum drawing angle for the drawing of metal rods 4214  
Calculating principles for the design of Pilgrim's seamless tube rolling mills: Part 1 6916
- Gelhar, L. W.  
Turbulent helical flow in an annulus 1133
- Geller, E.  
See Muller, P. F. 2209
- Gelman, A. P.  
See Weingarten, V. I. 1677
- Geltman, A. E.  
See Apatovskii, L. E. 5456
- Gemperlova, J.  
Dislocations in an inhomogeneous anisotropic medium 5866
- Genco, J. M.  
See Walters, C. T. 5784
- Genin, Y.  
See Durieu, J. 1336
- Genkin, E. L.  
See Ronzin, V. D. 9791
- Gent, A. N.  
Solvent-induced crack growth in rubbery block polymers 1017

- Gent, A. R.  
The ultimate load capacity of elastically restrained H-columns under biaxial bending 8502
- Genthe, W. K.  
Nuclear magnetic resonance applied to flow measurement 4465
- Gentry, G. L., Jr.  
See Margason, R. J. 6486  
Margason, R. J. 7345
- Genuys, F.  
Programming languages: NATO Advanced Study Institute 6641
- George, A. R.  
Reduction of sonic boom by azimuthal redistribution of overpressure 9675
- George, O. L., Jr.  
An extended correlation of hyper-sonic conical normal force data to large incidence 2627
- George, W. K.  
See Phillips, O. M. 4426
- Gera, J.  
See Decker, J. P. 1343
- Gerard, G.  
See Lakshmikantham, C. 6784
- Gerashchenko, E. I.  
Analysis of a nonlinear system by separation of motions 4865  
See also Barbashin, E. A. 5797
- Gerberich, W. W.  
Spontaneous strain aging as a mechanism of slow crack growth 6927
- Gerdin, G. A.  
Nature of the rotational discontinuity 8120
- Gerecke, H.  
See Levy, M. J. 9775
- Gergely, P.  
See Lutz, L. A. 1037
- Gerhard, E. R.  
See Ramaswamy, E. R. 8090
- Gerhart, K.  
Model experiments on the local variation of convective heat transfer at building facades 1994
- Gericke, O. R.  
Utilization of the liquid surface levitation effect as a means of ultrasonic image conversion for materials inspection 9558
- Gerinshtein, V. P.  
See Vinokurov, L. P. 1618
- Germ, E. I.  
Comparison of high-performance diodeless magnetic logic circuits by means of structural-phase diagrams and power gain 3084
- Gerritsma, J.  
Analysis of the modified strip theory for the calculation of ship motions and wave bending moments 7445
- Gershuni, G. Z.  
On the convective instability of fluids in interconnected vertical channels 3683  
Heat perturbation spectrum of incompressible fluid flows 4352
- On the theory of Rayleigh's instability 4525
- Gersten, K.  
Aerodynamic characteristics of slender wings near ground 5283  
Boundary-layer heat flow with consideration of frictional heat, laminar wedge flow, variable temperature and normal velocity along the wall 7133
- Gerstle, K. H.  
Behavior of reinforced concrete beams subject to cyclical bending loads 6981  
See also Russell, R. R. 2362
- Gerth, G.  
Fine and ultrafine comminution in the manufacture of useful dusts 4725
- Gertler, J.  
Some concepts on the programming of direct digital process control systems 45
- Gertsma, L. W.  
Design and fabrication of a counter-flow double-containment tantalum/stainless steel mercury boiler 8091
- Gerwin, R.  
Hydromagnetic surface waves in a conducting liquid surrounded by a compressible gas 2035
- Gerwin, R. A.  
Stability of the interface between two fluids in relative motion 8849
- Getmanskii, A.  
Optical methods of studying plastic strains 1744  
Axisymmetric pictures of bands in the case of reversible (elastic) and irreversible strain 7595
- Getsov, L. V.  
Question of the short-term relaxation and creep of heat-resistant alloys 9325
- Getzinger, R. W.  
A shock-wave study of recombination in near-stoichiometric hydrogen-oxygen mixtures 3531
- Getzler, Z.  
Model study on arching above buried structures 3277
- Geyer, E. H.  
On the determination of emissivity data of a cavity source for pyrometric use 8078
- Geyer, J. C.  
See Edinger, J. E. 6427
- Geymayer, H. G.  
Static tests of reinforced concrete beams: Part 1. Development of iterative analysis procedure and tests of beams reinforced with steel aluminum, and fiberglass, with and without helical compressive reinforcement 1038
- Ghali, A.  
Effect of elastic and creep recoveries of concrete on loss of prestress 322
- Ghavami, M.  
See Watkins, R. K. 9488
- Ghazi, H. S.  
A note on flow rate measurements of nonuniform flows 511
- Ghetaru, S.  
Some remarks on combinations of hyperstable blocks 9238
- Ghezzi, U.  
See Chiesi, F. 5553  
Casci, C. 6453
- Ghia, K. N.  
See Torda, T. P. 8753
- Ghia, V. V.  
Recirculation of gases in furnaces 2014  
Method of calculation of the discharge coefficient and angle of spray for spill pressure-jet atomizers with lateral fuel returning 4720
- Ghika, A.  
Mathematical works 3902
- Ghosh, A.  
Temperature distribution in a rotating cylinder with a steady point heat source at the surface 8054
- Ghosh, A. K.  
Note on the unsteady flow of viscoelastic Maxwell fluid between two confocal elliptic cylinders 5315  
Note on the steady flow of viscous liquid between two cylinders whose cross sections are confocal elliptic limacons, when the inner cylinder is towed along its axis 6242  
See also Mallik, B. K. 350
- Ghosh, P.  
See Das Talukder, N. K. 1614
- Ghosh, P. K.  
Effect of dynamic condition on curved beams with central circular holes of different  $d/W$  ratios under varying moment 2350  
Bending under varying loads of an anisotropic elliptical plate 7712
- Ghosh, P. R.  
Torsion of a large thick composite plate under shearing forces applied on two opposite faces with rigidity varying linearly with depth 9308  
Vibration of nonhomogeneous spherically aeolotropic spherical shell 9426
- Ghosh, R. S.  
See Ray, K. C. 6996
- Ghosh, T.  
Idealized plane slider bearing using viscoelastic lubricant 1431  
Idealized slider bearings with Maxwell liquid as lubricant 9994
- Ghoshal, S.  
Boundary layer with an external magnetic field in a plasma 2863  
On exact solution of a one-dimensional compressible flow 3515
- Ghouila-Houri, A.  
On the generalization of control system theory 838  
See also Garnier, F. 833  
Garnier, F. 3987

- Giacaglia, G. E. O.  
A semi-analytic theory for the motion of a lunar satellite 7350
- Giadrossi, G.  
Measurement of linear periodically time-varying systems transfer functions 3049
- Giaquinta, A. R.  
Slow non-Newtonian flow in a zone of separation 7026
- Gibbs, D. F.  
Some measurements of isothermal compressibility by a capacitance method 3382
- Gibbs, G. B.  
The role of grain-boundary sliding in high-temperature creep 4043
- Gibson, A.  
Single particle motion in toroidal stellarator fields 2865
- Gibson, C. H.  
Measurements of turbulent velocity and temperature fluctuations in the wake of a sphere 8010  
Fine structure of scalar fields mixed by turbulence: Part 1, Zero-gradient points and minimal gradient surfaces 9731
- Gibson, F. C.  
See Watson, R. W.  
Ribovich, J. 2091  
5630
- Gibson, R. E.  
The efficiency of horizontal drainage layers for accelerating consolidation of clay embankments 6069
- Gidaspow, D.  
See Solbrig, C. W. 2682
- Giencke, E.  
A simple finite process for solution of spatial elasticity problems: Parts 1 and 2 8400
- Gierasch, P.  
An approximate calculation of radiative heating and radiative equilibrium in the Martian atmosphere 2788
- Giesecke, J.  
Calculation of thermal stresses in concrete structures with linearly variable modulus of elasticity 9940
- Giesing, J. P.  
Nonlinear interaction of two lifting bodies in arbitrary unsteady motion 4347
- Giger, H.  
Seeking the characteristic density of particles in a system of bodies through measurement of the edge of the boundary 1468
- Giglio, E. J.  
Improvement in the measurement of intraocular distances using ultrasound 7380
- Gilbert, E. G.  
A note on the fixed-point method of J. E. Rubio 1521
- Gilbert, E. N.  
Steiner minimal trees 784
- Gilbert, F.  
Gravitationally perturbed elastic waves 9977
- Gilbert, G.  
See Edney, K. 2777
- Gilbert, R. B.  
Theory of detonation initiation behind reflected shock waves 9914
- Gilchrist, A.  
See Neilson, J. H. 2835  
Neilson, J. H. 4575  
Neilson, J. H. 5351  
Neilson, J. H. 7112  
Neilson, J. H. 7115  
Neilson, J. H. 8974
- Giles, W. B.  
Stability of dilute viscoelastic flows 445
- Gill, A. E.  
A proof that convection in a porous vertical slab is stable 9105
- Gill, K. F.  
Design of an optimum relay-type governor for a gas-turbine engine 1538  
Stability analysis for the practical engineer 3043  
Design analysis of model reference adaptive control systems applied to a gas-turbine aircraft engine 4909
- Gill, M. A.  
Rationalization of Lacey's regime flow equations 7933
- Gill, S. S.  
See Allman, D. J. 7001
- Gill, W. N.  
Heat transfer in thermal entrance region of cocurrent flow heat exchangers with fully developed laminar flow 6421  
See also Reehsinghani, N. S. 2783  
Zeh, D. W. 8944
- Gille, J. Ch.  
See Paquet, J. G. 9233
- Gilles, E. D.  
Systems with controlled variables dependent on location: Part 1 802
- Gillis, J.  
See Friedmann, M. 7069
- Gilly, J. -P.  
See Sananes, F. 1121
- Giloi, W.  
Future development in hybrid computation 7516
- Gilson, L. A.  
Design principles for sampled-data systems with application to attitude control of a large, flexible booster 3056
- Giltrow, J. P.  
Friction and wear properties of carbon fiber-reinforced metals 4776
- Gimmelfarb, G. L.  
Reading automation with optical control gauges and electronic-optical transducer 2255
- Gindoyan, A. G.  
The equivalent coefficient of thermal activity of floors 5483
- Ginos, Z.  
See Sved, G. 2529
- Ginoux, J. J.  
Boundary layer instability on swept-back wings 2621
- Ginsel, L. A.  
See Ballintijn, C. M. 1993
- Ginzberg, S. I.  
Attenuation of a flow of nonuniform circumference of an elementary stage of a bladed machine 1921
- Ginzburg, I. P.  
Influence of turbulent Pr number on friction and heat transfer at a plate immersed in a turbulent gas stream 6294
- Girard, H.  
Application of the gradient method to the numerical study of limited-power transfers between near-coplanar circular orbits: Comparison with the linearized solution 2892
- Girard, J.  
Vibrations of foundations having only one plane of symmetry on elastic supports 6015  
Noise in plumbing systems 6513
- Giraud, A.  
How dynamic miscibility contributes to the study of mixture zones 2956
- Giraud, H.  
See Chevalier, J. 3454
- Girgorov, G.  
Influence of a nonhomogeneous hf field on gaseous discharge plasmas 4607
- Giri, R. R.  
A note on magneto-elastic disturbances in an isotropic elastic layer of vacuum and semi-infinite elastic space 6898
- Girifalco, L. A.  
Point defects and diffusion in strained metals 3146
- Girija, H. M.  
Investigations on corrugated surface wave line 9474
- Gitis, M. B.  
Sound absorption in some liquid metals 9062
- Giusti, E.  
An example of the discontinuous solution of a minimum value problem with a regular integral of the calculus of variations 2999
- Giusti, F.  
A study of cutting temperature in relation to cutting factors and practical applications 5175
- Gjessing, D. T.  
A simple instrument for the measurement of fine scale structure of temperature and humidity, and hence also the refractive index, in the troposphere 2976
- Gladstein, L. I.  
Assessment of the brittleness of structural steels by testing of standard impact specimens 3326
- Gladwell, G. M. L.  
Variational calculation of the impedance of a lossy, nonuniform mechanical transmission line 172  
The vibration of mechanical resonators: Part 1, Uniform rings and disks 4145



## Gladwell, G. M. L. (Continued)

- The vibration of mechanical resonators: Part 2, Rings, disks, and rods of arbitrary profile 4146
- Forced tangential and rotatory vibration of a rigid circular disk on a semi-infinite solid 6822
- The calculation of mechanical impedances relating to an indenter vibrating on the surface of a semi-infinite elastic body 6874
- A contact problem for a circular cylindrical punch in adhesive contact with an elastic half-space: The case of rocking and translation parallel to the plane 9310
- Prediction of the unstable regions of a reciprocal system governed by a set of linear equations with periodic coefficients 9457
- Glaser, A. A.  
See Jamison, C. E. 751
- Glaser, H.  
The condensation of water vapor in pipe insulations caused by vapor diffusion 3712
- Diffusion of water vapor through the insulation of pipes 7275
- Glaser, R. F.  
Longitudinal mass-spring modeling of launch vehicles 8551
- Glass, D. R.  
Effects of acoustic feedback on the spread and decay of supersonic jets 5348
- Glawe, G. E.  
A small combination sensing probe for measurement of temperature, pressure, and flow direction 506
- Glazanov, V. E.  
Diffraction of a plane longitudinal wave by a grating of cylindrical cavities in an elastic medium 4680
- Glazyrin, V. S.  
Lateral vibrations of an unbounded plate lying on a base with two elastic characteristics 3236
- Gleaves, J. S.  
See Kitching, R. 3465
- Gleeson, L. J.  
The equations describing the cosmic-ray gas in the interplanetary region 7325
- Glezi, S.  
The hydrodynamic theory of sliding bearings lubrication 737
- Glick, H. S.  
Microwave study of the elastic scattering of electrons from argon atoms 7324
- Glicksman, L. R.  
The dynamics of a heated free jet of variable viscosity liquid at low Reynolds numbers 7962
- Gliki, N. V.  
See Gabarashvili, T. G. 8037
- Glikman, L. G.  
A case where the Hamilton-Jacobi equation is integrable 2286
- Glinski, G. S.  
See Kekre, H. B. 6665
- Glockner, G.  
On the interpretation of the viscosity-concentration relationship according to Schulz and Blaschke 6223
- Glover, G. M.  
A magnetostrictive instrument for measuring the viscoelastic properties of liquids in the frequency range 20-100 kHz 1060
- Gluck, J.  
See Winokur, A. 336
- Glucklich, J.  
Strain-energy and size effects in a brittle material 6097
- Glukler, E.  
Creep buckling of fuel element claddings 6791
- Gluyas, R. E.  
Calculation of fuel loss from vented nuclear fuel elements for space power reactors 2027
- Gluz, J.  
See Parszewski, Z. 5728
- Glyuzman, A. M.  
The stationary thermal field of the Earth near dome-shaped structures: Part 2 4752
- Gnatyuk, A. D.  
See Karlashov, A. V. 2491
- Gnezdilov, N. E.  
See Golubev, I. F. 2756
- Gnoenskii, L. S.  
Relationship between certain quality indices in linear stationary controlled systems 7532
- Gnuni, V. Ts.  
Frequencies of natural oscillations of a plate with a time-variable modulus of elasticity 8543
- Gobin, P.  
See Botte, R. 3267
- Delorme, J. F. 8899
- Goddard, J. D.  
An analysis of laminar forced-convection mass transfer with homogeneous chemical reaction 2808
- Goddard, W. F.  
See Van Ness, J. E. 35
- Godfrey, J. C.  
See Hall, K. R. 2582
- Goeben, H. -E.  
See Loos, W. 5042
- Goedecke, F.  
On the behavior of turbine and generator shafts in the hot running test 3384
- Goel, S. C.  
Inelastic earthquake response of tall steel frames 7911
- Goetz, R. C.  
Divergence of some all-movable control surfaces including drag loadings 1321
- Hypersonic flutter analysis using measured static aerodynamic derivatives, and comparison with experiment 7340
- Goetze, A. J.  
See Peterson, W. C. 1239
- Goetze, H. -P.  
See Lucy, J. 739
- Gogava, L. A.  
See Chikhladze, G. E. 100
- Gogol, W.  
The theory of thermal regular regime and its application to the heat transfer problems 6382
- Gogonea, S.  
On the movement of artesian water in presence of partially impermeable strata 5668
- Gogonenkov, G. N.  
Certain properties of real acoustic sections 5682
- Gogosov, V. V.  
Boundary layers in a fully ionized two-temperature plasma 3540
- Gold, R. R.  
Effect of wall conductance on magnetohydrodynamic flow through finite cross-section channels 2029
- Magnetohydrodynamic channel flow 6460
- Goldaev, I. P.  
Principles of the theory of jet torches used in new high-productivity technological processes 1054
- Goldberg, J. E.  
Analysis of triangularly folded plate roofs of umbrella type 6184
- Analytical and model studies of continuous folded plates 7675
- Lateral buckling of braced multi-story frames 7732
- Goldberg, J. L.  
A nonlinear control system for a vibration interferometer 5817
- Goldberg, L. J.  
Application of the microaerofluorometer to the study of dispersion of a fluorescent aerosol into a selected atmosphere 3828
- Goldberg, M.  
Two-lobed rotors with three-lobed stators 1786
- Goldberg, T. J.  
See Keyes, J. W. 3686
- Goldberg, W.  
Behavior of viscoelastic media under small sinusoidal oscillations superposed on finite strain 4039
- Goldenbaum, G. C.  
Experimental study of collision-free shock waves and anomalous electron heating 1301
- Golding, J. A.  
Mass transfer from single bubbles under distillation conditions 4557
- Goldman, E.  
The structure of shock-waves in gas mixtures 7104
- Goldman, J. L.  
The high speed updraft: The key to the severe thunderstorm 718
- Goldman, R.  
See Papirno, R. 5066
- Dolinsky, A. 8118
- Goldsberry, T. G.  
Reflection of circumferential waves from a slit in a thin-walled cylinder 8188

- Goldschmidt, V. W.**  
Added mass of equilateral-triangular cylinders 5291  
*See also* Protos, A. 5438
- Goldshtein, R. V.**  
On a stationary motion of a crack along a rectilinear boundary connecting two elastic media 3328  
On surface waves in joined elastic materials and their relation to crack propagation along the junction 5133
- Goldshnik, M. A.**  
On the theory of submerged laminar jets 1823  
*See also* Vainshtein, I. I. 3488
- Goldsmith, E. L.**  
*See* Dutton, R. A. 9757
- Goldsmith, H. L.**  
*See* Shizgal, B. 2618
- Goldsmith, W.**  
Dynamic loading of several concrete-like mixtures 3380  
*See also* Leitmann, G. 2278  
Kenner, V. H. 4165  
Kenner, V. H. 6030  
Okada, A. 6128  
Hertelendy, P. 6832
- Goldstein, A. A.**  
An effective algorithm for minimization 6638
- Goldstein, M. E.**  
Two-dimensional inviscid jet flow from two nozzles at an angle to a plane surface 5355  
*See also* Siegel, R. 7945
- Goldstein, R.**  
Radiation measurements from a pulsed high-pressure nitrogen arc 5585
- Goldstein, R. J.**  
Heat transfer by free convection from a horizontal wire to carbon dioxide in the critical region 3677  
Film cooling with normal injection into a supersonic flow 5523  
Film cooling with injection through holes: Adiabatic wall temperatures downstream of a circular hole 8102  
Measurement of laminar flow development in a square duct using a laser-doppler flowmeter 8878  
*See also* Joseph, D. D. 542  
Eckert, E. R. G. 2767
- Goldwag, E.**  
Von Karman hydraulic vortexes cause stay vane cracking on propeller turbines at the Little Long Generating Station of Ontario Hydro 3599
- Goldwyn, R. M.**  
Time optimal control of a linear diffusion process 65  
*See also* Carney, T. M. 5831
- Golecki, J.**  
Displacement field and state of stress in a heavy elastic ring supported at a point: Part 2 126  
Two-dimensional dynamical problems for incompressible isotropic linear elastic solids with time dependent moduli and variable density 6796
- Golenko, D. I.**  
Some schedule optimization problems in network planning and control (NPC) systems with multiple resources 852
- Golian, T. C.**  
*See* Vidal, R. J. 2778
- Golinski, J.**  
Investigation of a certain stray process as applied to the optimum synthesis of machines 8384  
*See also* Dietrich, M. 3018
- Golinski, J. A.**  
Ejectors: Theory and design 8783
- Golitsyn, G. S.**  
*See* Diky, L. A. 468
- Gollan, A.**  
Direct contact heat transfer with change of phase: Co-current flow of immiscible films with surface evaporation 8929
- Goller, H.**  
Unsteady rotating flow in a cylinder with a free surface 5312
- Gollnitz, H.**  
Release windows for the ejection of a body along a highly eccentric orbit 6494
- Golobic, R. A.**  
Shock-tube measurements of end-wall radiative heat transfer in air 6404
- Golovchan, V. T.**  
On concentration of dynamic stresses in a plate with two circular holes 8411
- Golten, J. W.**  
The use of hybrid computing in the analysis of steel rolling 6083
- Goltsev, V. Yu.**  
*See* Abramovich, M. D. 3334
- Goltsova, E. I.**  
Influence of an individual vapor-production site and the rate of breakaway of vapor bubbles on wall temperature 2792
- Golub, G. H.**  
Calculation of Gauss quadrature rules 9208
- Golub, N. N.**  
Optimal control of heating in massive bodies by internal heat sources 3996
- Goluba, R. W.**  
Generation of large amplitude periodic shock-fronted pressure waves in a resonant tube 7196
- Golubev, I. F.**  
Viscosity of methane-hydrogen mixtures at temperatures from 273 to 523°K and pressures up to  $490.3 \times 10^5$  N/m<sup>2</sup> 2756
- Golubev, V. A.**  
Investigation of a high-temperature turbulent jet 8787
- Golubev, V. G.**  
Regions where motion is impossible in the three-body problem 4910
- Golubev, V. S.**  
*See* Vitshas, A. F. 7320
- Golubkov, V. N.**  
Investigations of total deformations of sand cushion and large panel building in conditions of subsidential soils type I 6060
- Gomez, R. B.**  
*See* Austin, M. E. 2919
- Gomi, M.**  
Circulation distributions caused by secondary flows 4436
- Gomolko, L. N.**  
*See* Aroutunov, R. A. 3470
- Gomulinski, A.**  
On edge disturbances in an orthotropic shell 7710
- Goncharov, B. V.**  
On sinking of piles by pressing in Soil resistance when jacking piles 6065
- Goncharyuk, I. V.**  
Torsion of bars of a multi-angled profile with consideration of peculiarities of the stress function 6718
- Gonor, A. L.**  
Supersonic flow past triangular wings with ribs on their surface 6313  
Experimental investigation of the resistance of certain bodies in a hypersonic flow 7979
- Gontkevich, V. S.**  
Effect of an unsteady high-temperature field on the dynamic stability of a heat-conducting shell 4113
- Gonzales, R. L.**  
*See* Perkins, W. R. 7527
- Gonzales Aceves, P.**  
*See* Guerrero y Torres, J. 6367
- Goode, R. J.**  
Procedures for fracture toughness characterization and interpretations to failure-safe design for structural titanium alloys 4247
- Goodier, J. N.**  
Dynamic buckling of rectangular plates in sustained plastic compressive flow 7747
- Goodman, J. R.**  
Layered beam systems with interlayer slip 5912
- Goodwin, G. C.**  
A simplified method for the determination of the curvature of an error index with respect to parameters and initial states 7554
- Goody, R.**  
*See* Gierasch, P. 2788
- Goodykoontz, J. H.**  
*See* Stevens, G. H. 4549
- Gopalacharyulu, S.**  
A variational method for the end problem of rectangular strips 3118
- Gorbanov, A. S.**  
Deformative properties of clay backfill under lateral pressure 5148
- Gorbanov, G. P.**  
Calculation of the radii of stabilization when injecting stabilizers into dry soils 4186

- Gordeev, V. I.  
See Figurnov, E. P. 3025
- Gordon, A. S.  
Techniques for the study of the combustion of metals 1261
- Gordon, C. G.  
Spoiler-generated flow noise: Part 2, Results 8184
- Gordon, D. F.  
See Pedersen, M. A. 4691
- Gordon, M.  
Rational geometry for measuring elastic and viscoelastic parameters 108
- Gordon, P. F.  
See Chou, P. C. 2436
- Gordon, R. B.  
Velocity and attenuation of seismic waves in imperfectly elastic rock 3262
- Gordon, R. G.  
Error bounds in equilibrium statistical mechanics 3630
- Gordon, R. S.  
See Kent, R. C. 3435
- Gordon, V. A.  
Equations of equilibrium of the couple stress theory of elasticity 2308
- Goree, J. G.  
See Wilson, H. B., Jr. 7618
- Gorelik, A. G.  
See Shakhova, N. A. 3843
- Gorelov, D. N.  
Vibrations of cascade of airfoils in a transonic gas stream 1319
- Gorelov, G. M.  
See Tsybizov, Yu. I. 6268
- Gorelov, L. K.  
Stress concentration in the flexible rings of harmonic drives 344
- Goren, S. L.  
Mass transfer through horizontal liquid films in wavy motion 5520  
See also Porter, J. W. 9814
- Gorenflo, R.  
Two-dimensional magneto hydrostatic equilibria with inside field 1294
- Gorenshtein, I. V.  
Characteristics of the generation and radiation of noise from shake tables 6515
- Goresh, J. W.  
Analytical treatment of the explosion problem 7365
- Gorlov, A. M.  
Calculation of rectangular plates on an elastic base on the BESM-2M electronic computer 5004
- Gorlov, V. B.  
Application of the method of conformal transformations to the solution of problems of the theory of elasticity 86
- Gormley, J. F.  
See Francis, P. H. 98
- Gornshtein, B. Ya.  
See Kollerov, D. K. 3653
- Gorodetskii, A. K.  
The determination of the ground surface temperature from an air-plane by measuring the outgoing radiation in the 8-12 micron band 1953
- Gorodetskii, V. N.  
See Leshchenko, V. M. 9092
- Gorodtsov, V. A.  
On the kinematics, nonequilibrium thermodynamics, and rheological relationships in the nonlinear theory of viscoelasticity 5881
- Goroshko, O. A.  
See Savin, G. N. 9439
- Gorshin, S. I.  
On the principle of reduction 771
- Gorshkov, A. G.  
See Grigolyuk, E. I. 2721
- Gorshunov, L. M.  
Electromagnetic disturbances accompanying explosions 2092
- Gorskii, B. V.  
Some problems in the theory of unsymmetrical elasticity 1575
- Gosakov, A. A.  
See Kudryashev, L. I. 1815
- Gosh, P. K.  
Solution of the problem of large deflections of an elastic circular plate 5930
- Gossez, J. -P.  
On the periodic solutions of some nonlinear equations of mechanics 6605
- Goto, H.  
On earthquake response of bridge piers on pile foundations 338
- Goto, S.  
See Hirano, F. 4237
- Gotoh, K.  
On sandwich beams  
The equilibrium state of the finite disturbance in free flows 3164  
5313
- Gotoh, R.  
Slip fracture of betonite gels 248  
See also Shimizu, K. 247
- Gotoh, Y.  
See Yoshida, K. 120
- Gotovskii, M. A.  
See Borishanskii, V. M. 1990
- Gottenberg, W. G.  
Some applications of holographic interferometry 6137
- Gottfredi, J. C.  
The suppression of wind-generated waves by a surface film 2717
- Gotusso, G.  
Ignorable coordinates and extensions to gyroscopic effects 75
- Goughnour, R. R.  
Mechanical properties of a sand-ice system 6902
- Gould, L. A.  
On the modal control of distributed systems with distributed feedback 850
- Gould, P. L.  
Unsymmetrically loaded hyperboloids of revolution 4065  
See also Lee, S. -L. 3403
- Gourdine, M. C.  
Engineering aspects of electrogasdynamics 3785
- Gourlay, A. R.  
Finite-difference methods for nonlinear hyperbolic systems 2202
- Gowar, N. W.  
A note on the response time of the vacuo-thermo-junction 6380  
See also Bruckheimer, M. 1
- Gowen, R. A.  
Turbulent heat transfer from smooth and rough surfaces 6387
- Goyer, G. G.  
See Jones, D. L. 2629
- Graber, B. C.  
See Softley, E. J. 9717
- Graber, S. D.  
See Camp, T. R. 4326
- Grabowsky, W. R.  
Gage for measuring impulsive pressure in a container subjected to large, time-varying applied voltages 3609
- Grace, F. I.  
See Murr, L. E. 7854
- Gradowczyk, M. H.  
Wave propagation and boundary instability in erodible-bed channels 5279
- Graessley, W. W.  
Viscosity and normal stresses in branched polydisperse polymers 7030
- Graf, K.  
Experimental determination of temperature- and heat-transfer conditions in the turbine rotor jet engine 5555
- Graf, W. H.  
See Weisman, R. N. 6366
- Graffe, O.  
See Daubert, A. 3455
- Graham, A.  
A note on a transformation between two canonical forms in state-space in terms of the eigenvalues of the system matrix 8336
- Graham, D. J.  
See Joseph, D. D. 542
- Graham, G. A. C.  
On the solution of mixed boundary value problems that involve time dependent boundary regions, for viscoelastic bodies with temperature dependent properties 684  
The correspondence principle of linear viscoelasticity theory for mixed boundary value problems involving time-dependent boundary regions 4036
- Graham, J.  
Plane plastic failure in cohesionless soils 5147
- Graham, M.  
See Goldwyn, R. M. 65
- Graham, R. E.  
See Moseley, W. C., Jr. 1891
- Graham, R. W.  
The use of energy thickness in prediction of throat heat transfer in rocket nozzles 9827

- Gramain, P.**  
Study of grafted copolymers by flow birefringence and viscometry 7028  
*See also* Debeauvais, F. 5451
- Gran, S.**  
Method for measuring the acoustic impedance of the ear-drum 7377
- Grandoso, H.**  
*See* Fujita, T. 4767
- Granger, R. A.**  
Speed of a surge in a bathtub vortex 9643
- Granoff, B.**  
*See* Ludwig, D. 2183
- Grant, D. J.**  
Precision flow measurement techniques for low-thrust auxiliary-propulsion liquid rockets 4464
- Grant, H. L.**  
Some observations of the occurrence of turbulence in and above the thermocline 4759  
The spectrum of temperature fluctuations in turbulent flow 7147
- Granville, P. S.**  
Frictional-resistance and velocity similarity laws of drag-reducing dilute polymer solutions 5266
- Grasselli, A.**  
Method for the combined row-column reduction of flowtables 9241
- Grattan, P. A.**  
Abrasion by lamellar solid lubricants 8275
- Grauvogel, J.**  
Systematic study of optimization tendencies in open chain 2257
- Graves, Q. B.**  
*See* Baker, J. M. 2948
- Graves, R. A., Jr.**  
Flight-test analysis of Apollo heat-shield material using the Pacemaker vehicle system 574
- Gray, B. F.**  
*See* Yang, C. H. 8951
- Gray, J. O.**  
The application of photo-conductors as voltage variable operational elements in iterative analog computation 7551
- Gray, P.**  
Studies on criticality: Temperature profiles in explosive systems and criteria for criticality in thermal explosions 3731
- Gray, R. L.**  
Determination of seismic system distortion and its compensation using digital filters 8233
- Gray, S.**  
Gas bearings 1430
- Graydon, W. F.**  
*See* Golding, J. A. 4557
- Greibenkin, G. G.**  
Development of cracks about an arbitrary curvilinear hole 4221
- Greber, I.**  
*See* Lindow, B. 4363
- Grebinskii, A. S.**  
*See* Gurevich, L. E. 602
- Greco, C.**  
*See* Como, M. 7759
- Grecov, D.**  
Combustion length of open diffusion flames in the case of coaxial or opposed jets 4559  
*See also* Antonescu, N. 1255
- Green, A. E.**  
A note on the Cosserat surface 1633  
Elastic-plastic continua with simple force dipole 2328  
Ideal fluid jets 2601  
Rods, plates and shells 3109  
Theory of an elastic-plastic Cosserat surface 3142  
The linear elastic Cosserat surface and shell theory 5007  
Large deformations, superposed small deformations and stability of elastic rods 5040  
The Cosserat surface 5846  
A note on mixtures 6215  
A class of viscoelastic-plastic media 6741
- Green, D. R.**  
*See* Brown, C. B. 1719
- Green, N. B.**  
Factors in the aseismic design of reinforced concrete shear walls without openings 4294
- Green, R. F.**  
*See* Betson, R. P. 7427
- Green, R. N.**  
A semigraphical method for a de-orbit trajectory design study 1328
- Green, T., III**  
Oscillating convection in an elastico-viscous liquid 3436
- Green, W. A.**  
Simple deformations of materials with memory 9320
- Greenberg, J. M.**  
On the equilibrium configurations of compressible slender bars 2386  
Existence of steady waves for a class of nonlinear dissipative materials 5116
- Greenberg, R. J.**  
Archie's law for rocks modeled by simple networks 8603
- Greenblatt, M.**  
Collisionless plasma flow over a wedge 3790
- Greene, D. C.**  
Use of acoustical holography for the imaging of sources of radiated acoustic energy 9937
- Greenfield, R. S.**  
*See* Arnason, G. 3852
- Greenspan, D.**  
A numerical approach to biharmonic problems 780  
On approximating extremals of functionals: Part 2, Theory and generalizations related to boundary value problems for nonlinear differential equations 1464
- Greenstein, T.**  
Theoretical study of the slow motion of a sphere and a fluid in a cylindrical tube 9639
- Greenwood, J. A.**  
A simple method of summing Bessel series 3925
- Greenwood, J. H.**  
*See* Brookes, C. A. 686  
*See* Brookes, C. A. 1003
- Gregersen, G. G.**  
An in vivo study of the axial rotation of the human thoracolumbar spine 9156
- Gregory, R.**  
*See* Hughes, B. P. 8666
- Gregory, R. D.**  
An expansion theorem applicable to problems of wave propagation in an elastic half-space containing a cavity 226
- Greif, R.**  
Nongray radiation heat transfer in the optically thin region 3694  
Heat transfer in a growing vapor film 6413  
*See also* Chou, S-C. 6046
- Greim, I. A.**  
On a method of precision synthesis and analysis of mechanisms 4298
- Grekov, A. V.**  
*See* Kliehtov, N. V. 395
- Grenander, U.**  
Adaptive stochastic control: Differential equations and dynamical systems 1545  
Foundations of pattern analysis 8353
- Grenier, P.**  
*See* Bourgeois, P. 8206
- Gresse, H.**  
Propagation and dispersion of ionic waves: Application to the Langmuir probe 2061
- Gretener, P. E.**  
On the thermal instability of large diameter wells: An observational report 1389
- Gretler, W.**  
An indirect method for the calculation of plane subsonic flow 7088
- Grevett, S. P.**  
Spark knock: Part 4, The relationship between gasoline composition and spark knock at high engine speeds 5545
- Grewal, M. S.**  
Ion-ion velocity space instability 3768
- Gribanov, Yu. I.**  
*See* Minashin, V. E. 1966
- Gribben, R. J.**  
Magnetohydrodynamic boundary layers with variable properties 607
- Grier, N. T.**  
Back flow from jet plumes in vacuum 2635  
View factors for toroids and their parts 8073
- Griffel, W.**  
Plate formulas 2356



- Griffin, D. D.  
Infrared microradiometry: Precision and accuracy considerations applicable to microcircuit temperature measurements 5514
- Griffin, J. R.  
Application of two-dimensional photoelasticity to the study of acceleration stresses under quasi-static conditions 8647
- Griffin, R. E.  
Large and small scale sensitivity analysis of optimum estimation algorithms 7555
- Griffith, B. J.  
See Little, H. R. 5397
- Griffiths, D. F.  
A flow reversal due to edge effects 7955
- Griffiths, I. D.  
Subjective response to road traffic noise 4671
- Griffiths, R. B.  
See Wheeler, J. C. 3626
- Griffiths, W. M.  
See Parker, R. 2100
- Grigel, J.  
Resulting consumption characteristics of a steam power plant with any block arrangement 823
- Grigg, F. W.  
The radial stiffness and damping properties of pneumatic tires 3190
- Grigolyuk, E. I.  
On the analysis of line-loaded cylindrical shells 1638  
Motion of a rigid sphere under the influence of an acoustic pressure wave 2721  
Nonlinear equation of shallow many-layered shells of regular composition 5945  
Perforated plates and shells and problems associated therewith 6768  
On the creep buckling of shells 7748
- Grigorenko, Ya. M.  
Deformation of open shells of rotation with hinged meridional edges 132
- Grigorev, L. N.  
See Gaidarov, Sh. A. 563
- Grigorian, D. M.  
See Grigorian, S. S. 7670
- Grigorian, S. S.  
Some problems of the mathematical theory of deformation and fracture of hard rocks 3291  
Impact of a cone on a thin elastic membrane 7670
- Grigory, S. C.  
See Pickett, A. G. 1732  
Pickett, A. G. 4281
- Grigull, U.  
See Reimann, M. 2753
- Grimittin, M. I.  
The maximum range of vertically projected jets 8769
- Grimm, W.  
Simplified determination of the dimensionless characteristics for the convective heat transfer in liquid mineral oil products 1216
- Grimshaw, R.  
A note on the steady two-dimensional flow of a stratified fluid over an obstacle 3459  
The refraction of sound pulses 8181
- Grinberg, G. A.  
Solution of the generalized Stefan problem for the freezing of a liquid and related problems in heat conduction, diffusion, etc. 7263  
A method of approach to problems of the theory of heat conduction, diffusion and the wave theory and other similar problems in presence of moving boundaries and its applications to other problems 8046
- Grinda, L.  
Analysis of bearing walls of multi-story buildings 6182
- Gringauz, K. I.  
Change in solar wind ion flux with rise in solar activity level: Data from the "Venera-2" and "Venera-4" space probes 9012
- Griscom, C. A.  
Application of a perturbation technique to the nonlinear equations of internal wave motion 1148
- Grishanin, K. V.  
Similarity of flows in natural channels 7044
- Grishin, V. G.  
See Anokhin, A. M. 2253
- Grissette, R. F.  
See D'Appolonia, D. J. 7808
- Grobman, J.  
See Tacina, R. R. 9855
- Grobow, W. A.  
On the oscillations of quasilinear systems with gyroscopic terms when internal resonance is included 3103
- Grochowski, I.  
Secondary stresses in members of steel lattice mace columns 8695
- Groeneveld, D. G.  
See Nowak, E. S. 1955
- Groeneweg, J. F.  
Measured effects of gaseous flow system dynamics on acoustic-mode combustion instability 8957  
See also Heidmann, M. F. 2829  
Heidmann, M. F. 9964
- Groman, M. B.  
Selection of gear pairs for reduction units 2553  
Load distribution on gear teeth 4303
- Gromov, V. G.  
Concerning a method for describing the viscoelastic behavior of polymeric substances 7632
- Grootenhuis, P.  
See Agbasiere, J. A. 5993
- Grosberg, P.  
The dry wear of steel, in relation to spinning-traveller wear 2163  
The mechanical properties of woven fabrics: Part 6, The elastic shear modulus of plain-weave fabrics 7599
- Grosch, C. E.  
The stability of steady and time-dependent plane Poiseuille flow 4349
- Grose, W. L.  
A digital computer program for calculating the performance of single- or multiple-diaphragm shock tubes for arbitrary equilibrium real gas mixtures 1179
- Gross, J. H.  
See Rolfe, S. T. 4976
- Gross, M. R.  
Effects of notches and saltwater corrosion on the flexural fatigue properties of steels for hydrospace vehicles 6958
- Gross, R. A.  
See Fuller, A. L. 6464
- Grosse, F. A.  
Vapor condensation in a shock tube: Electrostatic effects 6275
- Grossner, H.  
See Steinbrenner, H. 1504
- Grot, R. A.  
Relativistic theory of the propagation of wave fronts in nonlinear elastic materials 4158  
See also Eringen, A. C. 6725
- Grotewohl, A.  
Investigating the effects of cross wind on passenger vehicles: Part 1 1145
- Groth, H.  
See Lucaccini, L. 6592
- Grounes, M.  
A reaction-rate treatment of the life fraction hypothesis in creep testing 7640
- Grover, F. H.  
Ground to air coupled waves from a distant earthquake 5681
- Gruat, J.  
See Rassi, M. 1069
- Grubinskas, R. C.  
See Gericke, O. R. 9558
- Gruenberger, F.  
Program testing and validating 31
- Grundmann, H.  
The simply supported sandwich panel with an isotropic core and anisotropic skin under compression and shear loads beyond the buckling limit 2395
- Grundy, R. E.  
See Freeman, N. C. 4392
- Gruskov, A. D.  
Axially symmetric deformation of a long cylinder which is inserted into a cylindrical shell 5021
- Grutman, M. S.  
Driven hollow pile with an expanding point 8593
- Gruza, G. V.  
The anisotropic space-time correlation function of a pressure field 9987
- Gruzinov, A. P.  
See Rakhmanov, A. S. 1005
- Gryazina, L. I.  
See Kollerov, D. K. 3653
- Grycz, J.  
On the compatibility conditions in the classical theory of elasticity 2302

- Gubanova, I. I.  
The effect of subcritical compression in a rod on the critical value of the compression force 3201
- Guderley, G.  
An extremum principle for friction-free steady flow of a compressible medium 8772
- Guderley, K. G.  
Ellipsoidal bounds for the solutions of systems of ordinary linear differential equations 6609
- Gudkov, L. V.  
See Alikhodzhaeva, M. A. 1985
- Gudovich, N. N.  
The application of the difference method to the solution of nonlinear elliptic equations 7492
- Gudymenko, B. A.  
Determination of the parameters of motion of an elastic aircraft according to the measured data by the method of successive approximations 1680
- Guelin, P.  
Integration of a diffusion equation as preliminary to the numerical simulation of fluid flows in non-saturated porous media 1857
- Guerraud, C.  
Measuring variations of detonation pressure of gas mixtures 7362
- Guerreiro, J.  
On the generation of a wave by a translating paddle 1159
- Guerrero y Torres, J.  
Proportional meters based on the theory of polynomial spillways 6367
- Gusein-Zade, M. I.  
On some properties of the state of stress of a thin elastic layer 2296
- Guevel, P.  
Flow around a blunt bulkhead partially driven into a homogeneous permeable isotrope terrain, limited by a horizontal substratum 7937
- Guha, D. K.  
Surface free energy or residual force at the solid-liquid interface 6226
- Guha, M. K.  
Uniqueness of the solution of two-dimensional boundary value problems 4926
- Guiasu, S.  
Application of information theory: Dynamic systems, cybernetic systems 7567  
On physical systems with random initial conditions 8885
- Guignard, J. C.  
Human response to intense low-frequency noise and vibration 9158
- Guinle, L. de M. F.  
See Sparrow, E. M. 7246
- Guinn, T.  
See Hestenes, M. R. 5825
- Guirsanov, I. V.  
Some relations between Bellman's and Krotov's functions in dynamic programming 6629
- Gukhman, A. A.  
Application of the theory of similarity to the investigation of the process of heat-exchange: Transfer processes in a moving medium 8914
- Gulati, S. P.  
On the motion of an elastico-viscous fluid in and around an oscillating sphere 8771  
The flow of a hydromagnetic fluid between two flat plates oscillating with any phase difference 9861
- Gulati, S. T.  
Effects of anisotropy in axisymmetric cylindrical shells 5954
- Gulbransen, L. B.  
Flow stress of 6061 Al alloy composites 891  
A new method to measure the microresidual stress-field around inclusions 3131
- Gulia, N. V.  
See Dvali, R. R. 7013
- Gulkanian, N. O.  
See Babloyan, A. A. 135
- Gulyaev, A. I.  
Ranque effect at low temperatures 3640
- Gulyaev, M. A.  
Achievements of high-vacuum metrology 6365
- Gulyas, J.  
See Geleji, A. 4214
- Guman, W. J.  
Dynamic behavior of imploding magnetically driven axisymmetric slug-type plasma sheets 8131
- Gumerov, V. M.  
See Berezhnoi, I. A. 3614
- Gundersen, R. M.  
One-dimensional magnetohydrodynamic flow and the Monge-Ampere equation 4584  
Steady axisymmetric magnetohydrodynamic flow 6459  
Steady flow of a perfectly conducting incompressible fluid 6463
- Gunter, E. J., Jr.  
The influence of internal friction on the stability of high speed rotors 6820
- Gunther, H.  
Some remarks about high velocity dislocations 6748
- Gupalo, Iu. P.  
The two-dimensional problem of fluidization 5659  
See also Buevich, Yu. A. 2677
- Gupta, A. K.  
Experimental and theoretical investigation of the stability of air flow over a water surface 3588
- Gupta, A. S.  
Note on the stability of a viscoelastic liquid film flowing down an inclined plane 7084  
See also Suryaprakasarao, U. 600
- Gupta, B.  
See Bhardwaj, R. K. 722
- Gupta, B. P.  
See Kumar, V. M. 5130
- Gupta, C. L.  
See Garg, H. P. 3857
- Gupta, C. P.  
Heat transfer from a vibrating wire to air in parallel flow 3663  
See also Singh, G. 3739
- Gupta, K. K.  
Determination of elastic moments in flat-plate and lift-slab structures by the moire method 290
- Gupta, M. M.  
See Nikiforuk, P. N. 9254
- Gupta, P. C.  
Heat distribution in face milling 4216
- Gupta, R. C.  
See Kapur, J. N. 352  
Kapur, J. N. 1792
- Gupta, R. K.  
Rotation of axisymmetric bodies in hydromagnetics: Finite conductivity 3788
- Gupta, S. C.  
See Bhargava, R. D. 7606
- Gupta, S. P.  
See Jain, G. S. 9484
- Gupta, V. P.  
See Santhanam, A. T. 4209
- Guralnick, S. A.  
See Swartz, S. E. 9392
- Gurdjian, E. S.  
See Hodgson, V. R. 3890  
Hodgson, V. R. 7467
- Gurevich, L. E.  
Effect of inhomogeneous hydrodynamic motion and thermal velocities on the propagation of magnetohydrodynamic waves 602
- Gurgoze, I.  
Finite deformation of a membrane by inextensible cords under rotation 7668
- Gurin, A. I.  
Stability of motion of gyroscopic and physical pendulums on a moving support 4915
- Gurland, J. E.  
See Post, D. 759
- Gurleyik, M.  
See Wellinger, K. 1425
- Gurney, C.  
Fracture in bending, torsion and radial pressure 6103
- Gurov, A. F.  
Orthogonal iteration 6021
- Gurov, S. V.  
Study of the intensity of cooling a guide blade 4509
- Gursoy, A. H.  
Lateral wind on side spans of suspension bridges 6178
- Gurtin, M. E.  
On the thermodynamics of materials with memory 1371  
A note on Cauchy's stress theorem 4934  
See also Coleman, B. D. 1946  
Coleman, B. D. 9620

- Gururaja, H. V.  
Process identification and adaptation by high frequency sinusoidal test signal 4905
- Gurvich, A. S.  
See Gorodetskii, A. K. 1953
- Guryanov, N. G.  
Cylindrical shells loaded over an area bounded by lines of curvature 7705
- Guryanov, V. M.  
Question of the extension of an isotropic plate with two elliptical holes 85
- Gusakov, I. Z.  
Some transformations of equations of motion of mechanical objects 7587
- Gusenkov, A. P.  
Properties of the diagrams of cyclic strain at normal temperatures 119  
Conditions of fatigue and quasi-static failure in the case of a small number of loading cycles 274
- Gusev, V. P.  
See Borisov, D. S. 170
- Gushcha, O. I.  
Effect of stress on the propagation velocity of ultrasonic waves in metals 961
- Gustafson, K.  
Inequalities for nonlocal parabolic and higher order elliptic equations 6615
- Gustafson, W. A.  
See Weber, J. A. 1284
- Gutenbaum, J.  
On application of an optimal linear controller in a system with constraints imposed on the control variable 8372
- Gutman, I. I.  
An invariant form of the integral law of conservation of energy 1564
- Gutzwiller, M. J.  
See Goldberg, J. E. 7675
- Guy, A. W.  
Studies on therapeutic heating by electromagnetic energy 5736
- Guyon, G.  
On the drainage of water bearing strata in a period of drying up 8228
- Guyton, A. C.  
Simulation of physiological mechanisms: Part 2 3897
- Guz, A. N.  
Equilibrium of a spherical shell in the shape of an eccentric ring 3177  
Accuracy of Kirchhoff-Love's hypothesis when determining critical forces in the theory of elastic stability 3195  
Stability of orthotropic bodies 5037  
See also Savin, G. N. 1578  
Savin, G. N. 4082
- Guzman, R.  
See Madinaveitia, M. 3397
- Guzov, M. Z.  
Calculation of filtration through heterogeneous earth-fill dams on an impervious base 5669
- Gvozdev, A. A.  
The change in the seismic parameters of a medium as a result of spalling phenomena 5680
- Gwyn, J. E.  
Digital resolution of residence time distributions from pulse response data 9247
- Gyadgaudatte, E. A.  
Laminar boundary layer on a conical surface in the case of a power law of velocity distribution on the outer boundary layer: Part 2, Molecular transfer in the case of variable viscosity 436
- Gyarmathy, G.  
On the influence of the design parameters upon the radial distribution of flow in axial turbine stages 6352
- Gyftopoulos, E. P.  
See Kyong, S. H. 3977
- Gyr, A.  
Analogy between vortex stretching by drag-reducing additives and vortex stretching by fine suspensions 3442
- ## H
- Haack, P.  
See Brehmer, E. 3068
- Haagsma, S. C.  
Preliminary investigation into the torsional strength of plain concrete beams 2535
- Haak, R. P.  
See Rolfe, S. T. 4976
- Haas, F. O.  
See Schwarz, H. 6706
- Haase, W.  
See Pflaum, W. 9852
- Haben, R. L.  
See Frederking, T. H. K. 4508
- Habib, P.  
On a mode of sliding of rock 8602
- Habibullah, B.  
See Sujeer, V. N. 1491
- Habip, L. M.  
On the capillary instability of a dielectric viscous liquid cylinder surrounded by another viscous fluid in an electric field 2844
- Hacker, T.  
Theory of stability and control of flight 8020
- Hackeschmidt, M.  
Correction of Prandtl's pitot tube values in free turbulent flow 6359
- Hackett, R. M.  
Viscoelastic stress distribution in a two-phase composite material model 4045  
A photoviscoelastic analysis of time-dependent stresses in a polyphase system 6966
- Haddad, A. H.  
On a nonlinear feedback filtering system 43  
Optimum filtering with a class of nonlinear systems 843
- Haddow, J. B.  
The flow of an incompressible elastic-perfectly plastic solid 4965  
Yield-point loading curves for circular plates 9378  
See also Danyluk, H. T. 9503
- Hade, G.  
Laser interferometer calibration system for extensometers 4755
- Hadjidemetriou, J. D.  
A classification of orbits through  $L_1$  in the restricted three-body problem 1330  
See also Contopoulos, G. 7356
- Hadlock, R. K.  
A laboratory hurricane model incorporating an analog to release of latent heat 4770
- Haft, E. E.  
See Smith, B. L. 1678
- Haftka, R.  
See Singer, J. 4105
- Hagan, S. L.  
Laminar flow in cylindrical ducts having regular polygonal shaped cores 7034
- Hagan, T. N.  
The determination of two performance parameters of ammonium nitrate/fuel explosives using the ballistic mortar 2908
- Hagemaier, D.  
Ultrasonic testing of melt-through welds in small-diameter, thin-walled tubing couplers 8671  
Nondestructive testing of brazed rocket engine components 8672
- Hageman, L. A.  
Estimating optimum overrelaxation parameters 3928
- Hagena, O. F.  
See Fisher, S. S. 5372
- Hagiwara, Y.  
Service load and fatigue strength: Report 6, Crack initiation and propagation under repeated varying load 7833
- Hahn, G. T.  
Plastic flow in the locale on notches and cracks in Fe-3Si steel under conditions approaching plane strain 3329  
Plastic zones generated by cracks growing under load 3335
- Hahn, S. J.  
See Kent, R. C. 3435
- Haiduc, C.  
Thermodynamic analysis of nuclear power station cycles with gas-cooled reactors 9858
- Haight, C. H.  
Trimodal solutions for shock structure in a gas of spherocylinders 7105
- Haines, D. J.  
Physical properties of human tooth enamel and enamel sheath material under load 6589
- Haines, D. W.  
Bechmann's number for harmonic overtones of thickness-shear vibrations of rotated-y-cut quartz plates 9443

- Haines, M. G.  
Observations of large nonequilibrium conductivity in a closed-cycle MPD channel with applied electric and magnetic fields 5561  
*See also* Bowers, E. 8134
- Hajal, M.  
Solution of the equations of isotropic elasticity in the case of small plane deformations and of random rotations 7596
- Hajduk, J.  
Computation of tension systems suspended on edge tension members 9563
- Hajek, J.  
The cracking limit of centrifugated reinforced concrete pipes under two-edge bearing loads 3396  
Numerical analysis of a cylindrical shell under axisymmetric load 5936
- Haji-Sheikh, A.  
*See* Sparrow, E. M. 1215
- Hajos, L.  
Pneumatic springs with rolling membranes 8494
- Hakim, M.  
*See* Hetsroni, G. 6429
- Halanay, A.  
Qualitative theory of pulse systems 9183
- Halbgebauer, E.  
Theory for determining the forcing functions for vibrations of railway vehicles 9435
- Haldeman, C. W.  
Further studies on electromagnetic means of adding heat and kinetic energy to a gas 4604
- Hale, D. K.  
Strengthening of silicate glasses by ion exchange 269
- Hales, A. L.  
Velocity distribution in the lower mantle 9117
- Hales, K. A.  
Minimum-fuel attitude control of a spacecraft by an extended method of steepest-descent 6687
- Haley, S. C.  
*See* Lee, K. L. 6066
- Haliburton, T. A.  
Numerical analysis of flexible retaining structures 5244
- Halkin, H.  
General necessary conditions for optimization problems 2263
- Hall, A. S.  
*See* Kabaila, A. P. 2383
- Hall, A. S., Jr.  
*See* Garrett, R. E. 1764
- Hall, D. B.  
*See* Swanson, C. J. 5216  
*See* Walker, A. C. 8455
- Hall, D. H.  
Design of steel structures for fatigue 6109
- Hall, K. R.  
The mixing rates of highly viscous Newtonian and non-Newtonian fluids in a laboratory sigma-blade mixer 2582
- Hall, W. J.  
*See* Newmark, N. M. 327
- Hallam, T. G.  
On the asymptotic growth of the solutions of a system of nonhomogeneous linear differential equations 7480  
Asymptotic expansions for the solutions of a class of nonhomogeneous differential equations 9177
- Halldorsson, O. P.  
Stability analysis of frameworks by matrix methods 3205
- Hallett, J.  
*See* Reil, K. 8750
- Halley, J. -C.  
*See* Lemaire, J. 9329
- Halligan, D. W.  
Structural design criteria for secondary containment structures 7896
- Halligan, J. E.  
Determination of the profile of a growing droplet 1810
- Halling, J.  
*See* Edwards, C. M. 2332  
*See* Edwards, C. M. 3867
- Hallman, G. L.  
*See* Cooley, D. A. 4815
- Halpern, F. R.  
Special relativity and quantum mechanics 4013
- Halpern, O.  
Remarks on the thermodynamic behavior of temperature-dependent parameters 516
- Halsey, G. H.  
The nondestructive testing of passenger tires 7861
- Hamada, M.  
Numerical method for nonlinear axisymmetric bending of arbitrary shells of revolution and large deflection analyses of corrugated diaphragm and bellows 148  
Deformation and stresses of flat-oval Bourdon tubes 1632  
Collapse pressure for the pressure vessel consisting of a cylindrical shell, a toroidal shell and a rigid circular plate 3407  
Numerical solutions of two-dimensional elastic, plastic problems by conformal mapping and finite-difference method: Part 1, Elastic solution of a strip with circular notches under tension 4968  
Numerical solutions of two-dimensional elastic, plastic problems by conformal mapping and finite-difference method: Part 2, Elastic torsion of circumferentially grooved shafts 5865
- Hamada, S.  
Expansion and thermalization of plasma in a nonuniform magnetic channel 5558
- Hamamoto, A. S.  
*See* Knollman, G. C. 7027
- Hamasaki, S.  
Electromagnetic microinstabilities of plasmas in a uniform magnetic induction 9001
- Hamblin, F. D.  
Abridged thermodynamic and thermochemical tables with charts 1194
- Hamel, P.  
Application of mass coupling to the determination of stability derivatives 8164
- Hamid, H. I.  
*See* Allen, J. 7051
- Hamielec, A. E.  
Numerical solution of the Navier-Stokes equation for flow past spheres: Part 2, Viscous flow around circulating spheres of low viscosity 3495  
Numerical studies of viscous flow around circular cylinders 8768
- Hamilton, G. M.  
Lubrication of rollers with oils containing polymers 8289
- Hamilton, H. H.  
*See* Dearing, J. D. 6325
- Hamilton, W. A.  
Dynamic response of pretensioned prestressed concrete beams 5232
- Hammeke, K.  
Heat transfer experiments on a heating strip with a longitudinal flow for Reynolds numbers between  $5 \times 10^3$  and  $10^6$  2774
- Hammitt, A. G.  
Chemical energy engines 4483
- Hammitt, F. G.  
*See* Lafferty, J. F. 4356
- Hammond, D. P.  
*See* Coupland, J. R. 1860
- Hammond, J. K.  
On the response of single and multi-degree of freedom systems to non-stationary random excitations 6022
- Hampshire, W. F., II  
*See* Green, R. N. 1328
- Hampton, L. D.  
Acoustic properties of sediments 4687
- Hamrick, P. E.  
Breakage of tobacco mosaic virus by acoustic transients: A hydrodynamical model 5733
- Hamrock, B. J.  
Incompressibly lubricated Rayleigh step journal bearing: Part 1, Zero-order perturbation solution 2173  
Incompressibly lubricated Rayleigh step journal bearing: Part 2, Infinite-length solution 2174
- Hamvas, F.  
Uplift forces on hydraulic structures under different conditions 3467
- Hamza, M. H.  
Extremum control of continuous systems 855  
Optimum design of multi-input, multi-output control systems using linear programming 3074



- Han, K. W.  
Analysis of control systems with complex nonlinearities and transportation lag 8341
- Hanamura, Y.  
The flexure torsion flutter of aerofoils in cascade: Part 2, Relations between flutter velocity and cascade conditions 2887
- Hanaoka, M.  
See Ueda, T. 7951
- Hanawa, T.  
Numerical effect of constraints in computations by the direct variational method—for the case of pure torsional vibration of thin-walled beams of open cross section On the natural vibration of plate-like wings of variable thickness 180  
Qualitative examination on the results of ground vibration tests of tail wing-fuselage combination structure 192  
Deflection analysis of variable thickness cantilever plate 203  
Vibration of an elastically supported cantilever plate 5000  
9420
- Handelman, G. H.  
Loss of boundary conditions in the asymptotic solution of linear ordinary differential equations: Part 1, Eigenvalue problems 768
- Handler, W.  
Automation theory as a subarea of applied mathematics 7526
- Handley, K. R.  
See Brosilow, C. B. 64
- Handraluca, V.  
See Szekely, I. 9609
- Hanin, M.  
The flow through a channel due to transversally oscillating walls 1910  
See also Friedmann, P. 3798
- Hankey, W. L.  
On initial conditions for viscous interacting flows 6270
- Hanko, Z.  
The role of surface roller in energy dissipation by hydraulic jump 365  
Application of stage relation at fixed-bed scale model test of natural water-courses 3475
- Hanley, M. J.  
Surface effect ships 1417
- Hanley, W. T.  
A correlation of end wall losses in plane compressor cascades 7178
- Hannant, D. J.  
The mechanism of creep in concrete 7637
- Hannen, R. A.  
See Darcy, V. J. 837
- Hannum, N. P.  
See Phillips, B. 7369
- Hanousek, J.  
Flight bio-telemetry 1447
- Hanratty, T. J.  
See Karabelas, A. J. 1874  
Cohen, L. S. 2716  
Dimopoulos, H. G. 3550  
Son, J. S. 6238  
Son, J. S. 9650
- Hansen, B. W.  
Cavitation damage experiments in a rotating disk apparatus especially with regard to the gas content of water 9628
- Hansen, M.  
See Boencke, H. 5287
- Hanson, F. B.  
The near-wake of a circular cylinder in crossflow 5305
- Hanson, J. N.  
Comparison of two optimizations of a nonlinear boundary-value problem 8367
- Hanson, M.  
See Mond, B. 1520
- Hanson, M. A.  
Quadratic programming in complex space 4855
- Hanuska, A.  
Contribution to the Reissnerian algorithm in the theory of bending of elastic plates 2358  
The second approximation of the Reissnerian algorithms in the theory of bending of plates 7684  
The Reissnerian algorithms in the refined theories of the bending of plates 8466
- Happ, W. W.  
See Sloan, A. D. 6639
- Happel, J.  
See Hnatow, M. 8759  
Greenstein, T. 9639
- Hara, K.  
See Fukada, E. 8305
- Hara, T.  
Aerodynamic drag of trains in tunnels 5422
- Hara, Y.  
See Ozaki, S. 4885
- Harada, I.  
Fan noise: Part 1, Noise of automotive cooling fans 1354
- Harada, M.  
Investigations on externally pressurized air journal bearings: Part 2, Experimental study on the dynamic instability 1433
- Harbour, P. J.  
See Lord, R. G. 5369
- Hardcastle, J. W.  
Downwards and sideways firing in a naval boiler 587
- Hardee, H. C.  
See Mack, L. R. 3676
- Hardin, J. C.  
See Stanisc, M. M. 4008  
Stanisc, M. M. 8533
- Hardy, J. M.  
Propulsive two-stream nozzles computing methods 418
- Hariharan, R.  
See Lakshminarasiah, M. 3645
- Harkanyi, I.  
A method for determining the optimum bearing width of pivoted pad bearings 2176
- Harker, R. J.  
See Pringle, O. A. 9167
- Harland, G. E.  
See Gill, K. F. 3043  
Gill, K. F. 4909
- Haroun, W.  
See Elvery, R. H. 6146
- Harper, E. Y.  
Maximum dissipation resulting from lift in a slow viscous shear flow 5292
- Harper, J. F.  
The motion of a spherical liquid drop at high Reynolds number 4361
- Harpur, N. F.  
Design and development of the Concorde structure 9591
- Harrington, R. E.  
Thermal conduction near a metal surface exposed to blackbody radiation 5499
- Harris, C. L.  
Lubrication in space vacuum ( $10^{10}$  torr): Part 1, Testing techniques for ball bearings 1435  
Lubrication in space vacuum: Part 2, Life test evaluation of solid film lubricated ball bearings at  $10^{-10}$  torr 2175  
Friction and wear performance of soft metal film lubricants in air and vacuum to  $10^{-10}$  torr 3866
- Harris, C. M.  
On the absorption of sound in humid air at reduced pressures 8192
- Harris, E. H.  
See Benedict, J. V. 752
- Harris, G. Z.  
The normal modes of a circular plate of variable thickness 3235
- Harris, H. D.  
A set of similar solutions of the compressible laminar boundary-layer equations for the flow over a flat plate with unsteady wall temperature 5390
- Harris, H. G.  
Problems associated with small scale models of shell structures 6959
- Harris, R. W.  
Direct measurement of mass pickup in a low-energy theta pinch 635
- Harrisberger, L.  
See Soni, A. H. 8716
- Harrison, D. R.  
FM telemetry for multiple force measurements on free-flying models 4475
- Harrison, H. B.  
The ultimate resistance to horizontal shear of a simple space frame 7892
- Harrison, J. P.  
Cryostat for the measurement of thermal conductivity and specific heat between 0.05 and  $2^{\circ}\text{K}$  1199
- Harrison, W. J.  
See Read, A. J. 577
- Harriss, D. K.  
An iterative procedure for the solution of perturbation equations 14

- Harrold, E. F.  
See Gilson, L. A. 3056
- Harrow, G. A.  
See Ellison, R. J. 4565
- Harrowell, R. V.  
A scheme for the more efficient incorporation of MHD into an existing power generation network 8888
- Harstead, G. A.  
Inelastic H-columns under biaxial bending 5959
- Hartbower, C. E.  
See Gerberich, W. W. 6927
- Hartley, D. L.  
See Huang, A. B. 2646  
Huang, A. B. 3536
- Hartman, C. W.  
See Colgate, S. A. 2055
- Hartman, W. F.  
Propagation of large amplitude waves in annealed brass 7781
- Hartmann, C.  
Equilibrium problem of an elastic medium with stress couples in linearized theory 9303
- Hartmann, W.  
Transmission ratios to be realized by wide V-belt drives with constant distance between axes 1768
- Hartner, M.  
Device for determining propagation velocity of elastic waves in rock samples 2458
- Hartnett, J. P.  
See Laganelli, A. L. 4555  
Liu, C. S. 5524  
Taitel, Y. 6405
- Hartogensis, F.  
See Ayy, A. P. 2953
- Hartranft, R. J.  
Effect of plate thickness on the bending stress distribution around through cracks 6716
- Hart-Smith, L. J.  
An analysis of inflatable paraboloids 913
- Hartz, B. J.  
See Watwood, V. B., Jr. 2293  
McGlenn, J. 6158
- Harvey, R. J.  
See Bluestein, M. 7278
- Harvey, C. A.  
See Luh, J. Y. S. 832
- Harvey, J. K.  
See Tunstall, M. J. 7956
- Harvey, R. A.  
Hydro-system optimization model 796
- Harvey, W. D.  
Velocity fluctuation intensities in a hypersonic turbulent boundary layer 9720
- Harwood, W. D.  
Nondestructive measurement of the quality of electroexplosive interfaces 7863
- Hasegawa, A.  
Numerical experiment on ion cyclotron heating 6470
- Hasegawa, M.  
Influence of rotatory inertia on transverse vibrations of isotropic, elastic, rectangular plates 5082
- Hasegawa, S.  
Nusselt numbers for fully developed flow in a tube with exponentially varying heat flux 1965  
Turbulent heat transfer in a tube with prescribed heat flux 3662  
See also Nishikawa, K. 4539
- Hasek, M.  
Some relations and standardized parameters in the analysis of the equation of diffusion for a point-type continuous source 8251
- Haseltine, W. R.  
Existence and stability theorems for exterior ballistics 9917
- Hashimoto, K.  
See Minami, Y. 2493  
Nakaguchi, H. 2701
- Hashimoto, T.  
See Tsukagoshi, I. 7847
- Hashin, Z.  
Assessment of the self-consistent scheme approximation: Conductivity of particulate composites 3655  
The inelastic inclusion problem 7654
- Hasiguti, R. R.  
Internal friction and related properties of the TiNi intermetallic compound 1375
- Hasofer, A. M.  
A statistical theory of the brittle fracture of steel 8617
- Hass, B.  
Analysis of oblique plates 6760
- Hassan, H. A.  
See Seals, R. K., Jr. 8999
- Hassan, N. A.  
Laminar flow along a vertical wall 8798
- Hassan, S. A.  
A study of radiation properties of oxide-metal composites 4534
- Hata, S.  
The characteristics of the moving friction between a plate and dry soil 727
- Hata, T.  
The theories of fracture in viscoelastic bodies 4226
- Hatano, T.  
Theory of failure of concrete and similar brittle solids on the basis of strain 3322  
Theory of failure of concrete and similar brittle solid on the basis of strain 8616
- Hatsopoulos, G. N.  
See Bornhorst, W. J. 6414
- Hatta, Y.  
See Saito, S. 7316
- Hatvany, J.  
The use of counting instruments in industrial automation equipment 50
- Hauck, G.  
New expression for the calculation of variations of the ballistic trajectory of the mean range under the action of a constant tail wind 9050
- Hauck, H.  
A modified confuge 7413
- Haugen, R.  
Laminar flow along a vertical wall 6288
- Hauk, V.  
State-of-the-art of X-ray stress analysis 1746
- Hauptmann, E. G.  
The influence of temperature dependent viscosity on laminar boundary-layer stability 1870
- Haurylkiewicz, J.  
The shear of the soil in the weakening plane 8582
- Hausen, H.  
Landolt-Bornstein data and functions of physics, chemistry, astronomy, geophysics and engineering: 6th edition 5470
- Hauser, D.  
Electron beam welding of beryllium 2568
- Havekotte, J. C.  
Near free-molecule heat transfer and density distribution between concentric spheres 9700
- Haven, G.  
See Solomon, L. P. 9926
- Havner, K. S.  
On energy derived difference equations in thermal stress problems 99  
On convergence of iterative methods in plastic strain analysis 2331
- Hawkes, I.  
Theory of the photoelastic biaxial strain gage 3360  
Theory of the determination of the greatest principal stress in a biaxial stress field using photoelastic hollow cylinder inclusions 8649  
Stress evaluation in low-modulus and viscoelastic materials using photoelastic glass inclusions 8650
- Hawkins, D. L.  
See Ffowcs Williams, J. E. 6333
- Hawkins, N. M.  
The bearing strength of concrete loaded through flexible plates 5227  
The bearing strength of concrete loaded through rigid plates 6991  
See also Roderick, J. W. 2352
- Hawkyard, J. B.  
A theory for the mushrooming of flat-ended projectiles impinging on a flat rigid anvil, using energy considerations 8576
- Haworth, D. R.  
See Witte, L. C. 7247
- Hawthorne, J. R.  
The effects of coupling nuclear radiation with static service stresses on pressure vessel material behavior 6145
- Hay, N.  
See Smith, A. G. 1971
- Hayakawa, K.  
See Yada, T. 3418

- |  |      |   |      |   |      |
|--|------|---|------|---|------|
| Hayakawa, O.<br>See Ogawa, K.  | 348  | Haythornthwaite, R. M.<br>A more rational approach to strain-hardening data   | 6743 | Hector, D. L.<br>On the linearized MHD flow past a semi-infinite flat plate in the presence of a transverse magnetic field          | 1303 |
| Hayashi, I.<br>The deformation of the circular cylinder under four equi-concentrated loads   | 7700 | See also Coon, M. D.  | 151  | Hees, G.<br>Beams and plates subject to moment loadings   | 6751 |
| Deformation and fracture of thin cylindrical shells under axial compression and internal pressure  | 8519 | Hayward, B. M.<br>See Ellison, R. J.  | 4565 | Hegedus, A.<br>See Silas, Gh.   | 5983 |
| Hayashi, K.<br>See Taira, S.   | 2497 | Haywood, R. W.<br>Thermodynamic tables in SI (metric) units   | 5464 | Hegemier, G. A.<br>Stress waves in a temperature-dependent viscoelastic half-space subjected to impulsive electromagnetic radiation | 7793 |
| Taira, S.  | 6114 | Hazell, C. R.<br>Visualization of lateral displacements of vibrating plates by the shadow moire method  | 7779 | On nonlinear steady-state solutions to moving load problems   | 9411 |
| Taira, S.  | 8660 | Hazen, G. A.<br>Stress concentration in strain-gradient bodies  | 6711 | Heidenreich, E.<br>See Weinrich, H.   | 5661 |
| Hayashi, M.<br>See Mitsuyasu, A.   | 8015 | Head, M. R.<br>See Patel, V. C.   | 5394 | Heidmann, M. F.<br>Dynamic response of liquid jet breakup   | 2829 |
| Hayashi, S.<br>See Yamamoto, T.  | 8529 | Dvorak, F. A.   | 9828 | Analysis of the dynamic response of liquid jet atomization to acoustic oscillations   | 9964 |
| Hayashi, T.<br>Exhaust characteristics of canopy hoods: Comparison of two- and three-dimensional flows   | 3482 | Headley, J. W.<br>See Franks, W. J.   | 7164 | Heijboer, J.<br>Dynamic mechanical properties and impact strength   | 3135 |
| On the shear instability of structures caused by compressive load  | 5963 | Heald, P. T.<br>See Bilby, B. A.  | 1730 | Heilig, M.<br>Pressure-drop as a criterion for estimating the optimum design of vortex chambers in internal combustion engines      | 2022 |
| See also Matsumiya, K.   | 3559 | Healy, F. M.<br>See Crane, H. L.  | 4621 | Heindl, W.<br>Flow of an incompressible medium in which the convective acceleration vanishes  | 5282 |
| Hirano, Y.   | 9400 | Healy, J. H.<br>See Borchardt, R. D.  | 7419 | Heinecke, E.<br>See Hammeke, K.   | 2774 |
| Haycock, O. C.<br>Falling sphere for measuring atmospheric density   | 8259 | Healy, M. J. R.<br>Multiple regression with a singular matrix   | 7478 | Heinen, J. A.<br>Modified equivalent gain analysis of nonlinear systems with Gaussian noise   | 6659 |
| Hayday, A. A.<br>On laminar boundary-layer flows of a dissociated gas past catalytic surfaces  | 4399 | Heap, J. C.<br>Bending of circular plates under a variable symmetrical load: Part 1   | 1624 | Heinhold, J.<br>Statistics for engineers: Second revised and enlarged edition   | 9190 |
| Hayduk, R. J.<br>Response of an infinite elastic plate to axisymmetric initial velocity distributions with application to hypervelocity impact | 6884 | Bending of circular plates under a uniform load on a concentric circle: Part 2  | 9346 | Heinisch, R. P.<br>Transient combined conduction-radiation in an optically thick semi-infinite medium                               | 1209 |
| Hayes, C. D.<br>High-frequency microphone calibration using a supersonic free-flight range   | 2113 | Heaps, N. S.<br>Estimated effects of a barrage on tides in the Bristol Channel  | 8244 | Heinrich, H.-J.<br>A criterion for the rotation capability of frame-supported gear members of a four-membered spatial mechanism     | 7019 |
| Hayes, D. J.<br>The sensitivity of the thermistor katharometer   | 2763 | Heard, M. J.<br>Alpha track autoradiography of sub-micron aerosol particles with the electron microscope  | 4729 | Heins, C. P., Jr.<br>Bridge analysis using orthotropic plate theory   | 331  |
| Hayes, M.<br>On pure extension   | 2290 | Hearle, J. W. S.<br>Nonwoven fabric studies: Part 16, The behavior of model systems of bonded fibers  | 141  | Bridge tests predicted by finite difference plate theory  | 7848 |
| On the displacement boundary-value problem of linear elastodynamics  | 4018 | A study of needled fabrics: Part 4, The effects of stretch, shrinkage, and reinforcement; Part 5, The approach to theoretical understanding                             | 144  | Heiser, W. H.<br>See Presz, W. M., Jr.  | 8794 |
| A remark on Hadamard materials   | 5845 | Heaton, M. D.<br>A calculation of the elastic constants of a unidirectional fiber-reinforced composite  | 2319 | Hellan, K.<br>Analysis of rectangular plates in stationary creep bending  | 4071 |
| A simple statical approach to the measurement of the elastic constants in anisotropic media  | 9550 | Hebbbar, K. S.<br>Skin friction in compressible turbulent boundary layers   | 9716 | Hellberg, M. A.<br>See Dougherty, J. P.   | 6472 |
| Hayes, W. D.<br>Self-similar strong shocks in an exponential medium  | 2903 | Hebbel, H.-H.<br>About the influence of Mach number and Reynolds number on the aerodynamic coefficients of compressor cascades at various turbulence levels of the flow | 7181 | Dougherty, J. P.  | 7323 |
| The propagation upward of the shock wave from a strong explosion in the atmosphere   | 5334 | Heckl, M.<br>Input admittance of plates with radiation load   | 659  |   |      |
| Hayhurst, D. R.<br>See Penny, R. K.  | 9321 |   |      |   |      |
| Haynes, G. W.<br>On the optimality of a totally singular vector control: An extension of the Green's theorem approach to higher dimensions     | 66   |   |      |   |      |
| Hays, D. F.<br>Heat conduction in solids: Temperature-dependent thermal conductivity   | 8042 |   |      |   |      |

- Heller, G.  
Dimensioning principles of the air-compressor and the main air-receiver for the brake-equipment in railway-trains: Part 2 3605
- Heller, H. H.  
Dynamics of an acoustic probe for measuring pressure fluctuations on a hypersonic re-entry vehicle 7192
- Heller, L.  
Entropy or exergy 5461
- Heller, R. A.  
Random-load fatigue tests on a fail-safe structural model 1011
- Hellums, J. D.  
See Fagela-Alabastro, E. B. 3480  
Hirasaki, G. J. 4350
- Helmuth, J. G.  
See Hunter, N. F., Jr. 827
- Helwig, N.  
The effect of precompression and indexes of coal-dust/air mixtures 4571
- Hemann, J. H.  
See Achenbach, J. D. 3333
- Hemp, G. W.  
On dynamical systems with high frequency parametric excitation 4006
- Hempel, P.  
Optimum micro-piloting of a projectile into a circular trajectory  
Extension of the Hohmann transfer to nonaligned elliptical orbits 3079 5611
- Hemphill, R. B.  
Instrumentation for ultrasonic studies at frequencies from 0.2 to 2.0 GHz 4697  
See also Claiborne, L. T. 9932
- Hempleman, H. V.  
See Walder, D. N. 1366
- Henderson, D. B.  
Aerodynamic study of an argon plasma 628
- Henderson, J.  
Creep recovery of commercially pure copper 6152
- Henderson, K. A.  
A criterion for the control of 100-ton hopper car roll motion 6849
- Henderson, K. C.  
Control section design of a multi-component microforce measurement system 2251
- Henderson, L. F.  
On the irregular refraction of a plane shock wave at a Mach number interface 470  
The reflection of a shock wave at a rigid wall in the presence of a boundary layer 1111
- Hendricks, C. D.  
Production of uniform droplets by means of an ion drag pump 3829  
See also Robertson, J. A. 4250  
Erin, T. 4722
- Hendricks, R. C.  
Film boiling from submerged spheres 8086
- Hengstenberg, H.  
See Dahl, W. 1720
- Henning, G. B.  
A model for auditory discrimination and detection 6590
- Henri-Robert, A.  
New method for the determination of the sum of the principal stresses in a two-dimensional photoclastic medium 289
- Henrych, J.  
An approximative solution of short-time dynamic loading of a ring, sensitive to the rate of deformation  
Slope deflection method of the calculation of frames under non-periodical dynamic loadings 6047 9432
- Henschel, F.  
See Narjes, O. 844
- Henshaw, D. E.  
Cam forces in weft knitting 1771
- Hensley, R. C.  
Computer analysis of nonlinear truss-structures 7890
- Henzel, J. H.  
Reappraisal of biodynamic implications of human ejections 1436
- Herakovich, C. T.  
See Hodge, P. G., Jr. 4047
- Herber, R.  
Optimum metal springs 6189
- Herbert, L. S.  
An experimental investigation of heat transfer to water in film flow: Part 1, Nonboiling runs with and without induced swirl; Part 2, Boiling runs with and without induced swirl 8084
- Hering, R. G.  
Surface radiation properties from electromagnetic theory  
Radiant energy transport through a circular tube 6410 8077
- Herrmann, W.  
Energy transport by radiation with absorption in cylindrical arcs 7259
- Hermans, A. J.  
Diffraction of a wave at high frequencies by an arbitrary smooth convex object 6329
- Herrin, E.  
See Tucker, W. 5676
- Herring, J. R.  
Statistical theory of thermal convection at large Prandtl number 9822
- Herrman, L. R.  
A finite-element analysis for thin shells 5006
- Herrmann, G.  
Applications of theories of generalized Cosserat continua to the dynamics of composite materials 6044  
See also Sun, C. -T. 236  
Krajcinovic, D. P. 2396  
Achenbach, J. D. 4176  
Ong, C. -C. 6007  
Sun, C. -T. 6894  
Russell, J. E. 7175
- Herrmann, J.  
Gas-density fluctuations in the wakes from hypersonic spheres 2625
- Herrmann, K.  
See Hieke, M. 9949
- Herrmann, L. R.  
See Taylor, R. L. 2316  
Mason, W. E., Jr. 8453
- Herron, A. G.  
See Berg, G. J. 8041
- Hersch, J.  
Extremal principles and isoperimetric inequalities for some mixed problems of Stekloff's type 8531
- Hersh, R.  
The three-dimensional wave equation in a characteristic quarter-space 3001
- Hershey, D.  
Laminar regime transition for blood flow in tubes 1439  
Critical Reynolds number for sinusoidal flow of water in rigid tubes 9655
- Hershey, H. C.  
Existence of two types of drag reduction in pipe flow of dilute polymer solutions 357
- Hertelendy, P.  
An approximate theory governing symmetric motions of elastic rods of rectangular or square cross section 1694  
Flexural vibrations of an elastic plate with two symmetric viscoelastic coatings 6832
- Hertrich, H.  
On the experimental study of unsteady, three-dimensional airfoil theories for incompressible flow  
A method for automatically measuring instantaneous airload distributions 3561 4455
- Herzog, U.  
Problems of heat dissipation in the continuous casting of copper 9512
- Hess, J. L.  
Calculation of potential flow about arbitrary bodies 5288
- Hess, S.  
Generalized Boltzmann equation for polyatomic gases 3535
- Hess, S. L.  
See Hadlock, R. K. 4770
- Hesse, S.  
Measurement of the transmittable torque for light bulbs 8662
- Hesselgreaves, J. E.  
The heating of air by "dark" discharge 3621
- Hestenes, M. R.  
An embedding theorem for differential equations 5825
- Hetnarski, R. B.  
See Boley, B. A. 6531
- Hetsroni, G.  
Cross flow and mixing of water between semi-open channels 6429



- Hettche, L. R.  
Theoretical and experimental study on longitudinal impact of tapered rods 6886
- Hewitt, H. C.  
Bubble growth and collapse in liquid nitrogen 4726
- Hewson-Browne, R. C.  
Time-dependent motions of the cavity formed when a uniform corpuscular flux is incident on the magnetic field of a line current 1287
- Heyman, H.  
Bending moment distributions in collapsing frames 8686
- Heyman, J.  
The simple plastic bending of beams 7661
- Heymann, F. J.  
On the shock wave velocity and impact pressure in high-speed liquid-solid impact 5627
- Heynatz, J. T.  
Nonlinear wave propagation in a flow 1843  
Sails at small angles of attack in supersonic, hypersonic and transonic flow 1877  
On the calculation of anisotropic wave-propagation phenomena by means of the stream function 3521  
Treatment of a boundary-value problem of a cylindrically symmetric pressure wave of small amplitude 8835
- Heyson, H. H.  
Use of superposition in digital computers to obtain wind-tunnel interference factors for arbitrary configurations, with particular reference to V/STOL models 5424
- Heywood, J. B.  
See Norris, W. T. 9886
- Hicken, G. K.  
Joining beryllium by an electron beam braze welding technique 2569
- Hickerson, J. P.  
The influence of notches on the fatigue resistance of pressure vessel steels 5188
- Hickling, R.  
Echoes from spherical shells in air 1357  
See also Diercks, K. J. 673
- Hickman, T. G.  
Pyroelectric transducers for the measurement of heat transfer under conditions of hypersonic flow 2802
- Hicks, B. B.  
See Dyer, A. J. 2156
- Hidasi, K.  
Machining of a conical surface by a copying process on a drum-type revolver lathe 7825
- Hide, R.  
On slow transverse flow past obstacles in a rapidly rotating fluid 3501
- Hidy, G. M.  
See Lai, J. R. 7193
- Hieber, C. A.  
Low Reynolds number heat transfer from a circular cylinder 8067
- Hieke, M.  
On a plane inhomogeneous problem of thermoelasticity 9949
- Hiers, R. S., Jr.  
Analysis of nonequilibrium air streams in the Ames 1-foot shock tunnel 4471
- Higgins, L. S.  
A device for the investigation of head injury effected by nondeforming head accelerations 5738
- Higgins, T. R.  
Proposed working stresses for fillet welds in building construction 7918
- High, R. W.  
Some liquid oxygen/liquid hydrogen explosive effects in controlled failure-mode tests 9843
- Hightower, J. D.  
Combustion of ammonium perchlorate 6447
- Higuchi, M.  
Photographic observations of fatigue fracture of polycarbonate 6951  
Stiffness increase associated with fatigue of polycarbonate 7836
- Hilado, C. J.  
Analysis of some flammability characteristics of cellular polymers 2007
- Hilbig, G.  
The turbidimetric determination of finely dispersed technical systems 8219
- Hilborn, C. G., Jr.  
Optimal unsupervised learning multi-category dependent hypotheses pattern recognition 3998
- Hildebrand, F. B.  
Finite-difference equations and simulations 5766
- Hildebrand, R. E.  
A test of the withdrawal theory for Ellis fluids 7029
- Hildebrandt, A. F.  
See Corke, H. E. 1929
- Hill, C. D.  
See Cannon, J. R. 558  
Cannon, J. R. 5500
- Hill, L. A., Jr.  
Design curves for plastic design of uniformly loaded steel beams 6978
- Hill, L. R.  
See Ariman, T. 5297
- Hill, P. G.  
Incompressible jet mixing in converging-diverging axisymmetric ducts 7078
- Hill, R.  
On constitutive inequalities for simple materials; Part I 6727
- Hill, W. F.  
See Basu, A. K. 4095
- Hiller, J.  
Stability of finite-width sampled-data systems 5806
- Hillert, M.  
See Stawstrom, C. 9526
- Hillier, M. J.  
See Perlock, J. 3304  
Franklin, E. R. 3831  
Lal, G. K. 6919  
Bedi, D. S. 8613
- Hills, A. W. D.  
A note on the enhancement of the diffusion limited vaporization rates by condensation within the thermal boundary layer 8098
- Hills, R. N.  
The slow flow of a dipolar fluid past a sphere 2574
- Hilsenrath, J.  
OMNITAB: A computer program for statistical and numerical analysis 3022
- Hilyard, N. C.  
Fracture toughness of regenerated cellulose film 1728
- Hine, R. J.  
See Hodgson, J. P. 6377
- Hingst, W. R.  
Motion of an electric arc in a transverse magnetic field 5589
- Hino, M.  
Equilibrium-range spectra of sand waves formed by flowing water 5275
- Hinsley, C. F.  
Frictional properties of metal oxides at high temperatures 1423
- Hinton, F. L.  
Collisionless absorption and emission of electromagnetic waves by a bounded plasma 2869
- Hirabayashi, H.  
Excessive abrasion of mechanical seals caused by salt solutions 2165
- Hirai, N.  
See Saito, A. 7844
- Hirakawa, H.  
See Gent, A. N. 1017
- Hirakawa, K.  
See Nishioka, K. 4231
- Hiramatsu, Y.  
Determination of the stress in rock unaffected by boreholes or drifts, from measured strains or deformations 5162
- Hirano, F.  
Abrasive wear caused by pulverized coal 3877  
Fatigue cracks of bearing metals caused by reciprocating rubbing 4237  
Effect of work hardening during rolling contact on pitting of gear materials 8287
- Hirano, Y.  
Effective width of curved plates: Part I, Analysis 9400
- Hirao, O.  
Improvement of safety of automobile as man-machine system at high-speed 6672
- Hiraoka, M.  
A variational principle for transport phenomena: Part I, Formulation of principle 7228

- Hirasaki, G. J.  
A general formulation of the boundary conditions on the vector potential in three-dimensional hydrodynamics 4350
- Hirata, M.  
See Kato, H. 7244
- Hirayama, N.  
A research on the refuse incinerators from the viewpoint of smoke properties 6443
- Hirose, S.  
Field test of corrosion resistant rails on their endurance limit to rail end fracture 1737
- Hirota, I.  
On the dynamics of long and ultralong waves in a baroclinic zonal current 5698
- Hirowatari, T.  
Fore-and-aft vibration of superstructure located at aftership 3247
- Hirsch, A. A.  
Filter backwashing tests and upflow equalization 3832
- Hirsch, C.  
Macroscopic rheology in collagen material 1793  
The flow of a conducting fluid in a duct of equilateral triangular cross section in presence of a transverse magnetic field 6457  
The flow of a conducting fluid in a duct of right triangular cross section in presence of a transverse magnetic field 6458  
See also Jaumotte, A. L. 5599
- Hirsch, R.  
Calculation of the turbulent boundary layer and of transition on a plane plate 6292
- Hirshfelder, J. O.  
See Harriss, D. K. 14
- Hjelmstad, K. E.  
See Bur, T. R. 9494
- Hlavacek, I.  
On the existence and uniqueness of solutions in the theory of linear creep: Part 3, The contact and mixed problem 876  
Variational principles in the linear theory of elasticity for general boundary conditions 4943
- Hlavacek, V.  
Shear instability of orthotropic panels 906  
The three-dimensional buckling of thin-walled open-section bars 2385  
Compression of thin-walled hollow rods 7738
- Hlavaty, V.  
Classification of space-time curvature tensor VIa: Complex basic characteristics of the types I, II, IV 3903
- Hnatow, M.  
Sedimentation of two prolate spheroids in close proximity 8759
- Ho, C. Y.  
Thermal conductivity of selected materials: Part 2 6374  
Thermal conductivity 9802
- Ho, D. V.  
See Wilson, H. K. 442
- Ho, M. M. K.  
See Kondner, R. L. 250
- Ho, Y. C.  
A descent algorithm for constrained stochastic extrema 3986
- Hoare, D. E.  
Cool flames and molecular structure 2821
- Hochel, J.  
See Glukler, E. 6791
- Hochfeld, D. A.  
Application of linear programming methods to some two-dimensional problems of ultimate equilibrium and adaptability in the state formulation 7514
- Hochmuth, R. M.  
See Sutura, S. P. 7470
- Hocking, L. M.  
Long wavelength disturbances to nonplanar parallel flow 1906  
Boundary and shear layers in a curved rotating pipe 6241
- Hodge, P. G., Jr.  
On numerical comparisons in elastic-plastic torsion 4047  
Numerical applications of minimum principles in plasticity 4049  
Numerical methods for the limit analysis of plates 8683  
See also Sawczuk, A. 2329  
Biron, A. 3182  
Biron, A. 7701  
Prager, W. 8432
- Hodgson, A. S.  
Forced convection, subcooled boiling heat transfer with water in an electrically heated tube at 100-550 lb/in.<sup>2</sup> 561
- Hodgson, J. P.  
Measurement of the relaxation frequency of the asymmetric stretching mode of carbon dioxide 6377
- Hodgson, V. R.  
The determination of response characteristics of the head with emphasis on mechanical impedance techniques 3890  
The development of a model for the study of head injury 7467
- Hoeg, K.  
Stresses against underground structural cylinders 5144
- Hoelker, R. F.  
A comparison of a class of Earth-Moon orbits with a class of rotating Kepler orbits 1327
- Hoes, F. O.  
Simultaneous initiation over large areas of a spray-deposited explosive 5629
- Hoff, N. J.  
See Carlson, R. L. 8508
- Hoffert, M. I.  
Quasi-one-dimensional, nonequilibrium gas dynamics of partially ionized two-temperature argon 6473
- Hoffman, D.  
Analysis and interpretation of full-scale data on midship bending stresses of dry cargo ships 9588
- Hoffman, D. K.  
See Klein, W. M. 5459
- Hoffman, E. J.  
Explicit solutions of the Nusselt relations for laminar condensation 8088
- Hoffman, G. H.  
Higher approximations for supersonic flow past slowly oscillating bodies of revolution 6312
- Hoffman, H. S.  
Temporal parameters in startle facilitation by steady background signals 6595
- Hoffman, I. C.  
See Hunt, W. A. 7406
- Hoffman, J. D.  
Optimum thrust-nozzle contours for gas-particle flows 5352
- Hoffman, L. H.  
Approximation to the statistics of midcourse velocity corrections 9199
- Hoffman, M. A.  
Nonequilibrium MHD generator losses due to wall and insulator boundary-layer leakages 9016
- Hoffman, S.  
See Janos, J. J. 7114
- Hoffmann, A.  
Analysis of the effect exerted by a variable heat-transfer coefficient upon the heating process carried out with a cylindrical body: Part I 3669
- Hoffmeister, M.  
Approximate calculation of two-dimensional subsonic flows through arbitrary cascades by means of third degree polynomials 6262
- Hofmann, G.  
Manufacture and uses of a new type of fatigue testing apparatus 2515
- Hofmann, R.  
A contribution to the theory of sampled-data systems for control loops of any order 6667
- Hoggatt, C. R.  
Fracture behavior of tubular bombs 1000
- Hoglund, T.  
Interaction design method for beam-columns 9391
- Hogstrom, U.  
Studies of the natural evaporation and energy balance 3854
- Hohl, F.  
Minimum energy property of a bounded one-dimensional plasma 8129
- Hohn, R. E.  
A stability algorithm for a special case of the milling process: Part 6, Contribution to machine tool chatter research 6086  
See also Sridhar, R. 6085  
Sridhar, R. 6087
- Hokes, J.  
Analog model of mutual displacement of two bodies in the space 2216
- Holbeck, H. J.  
Structural dynamic analysis of the Mariner Mars 1969 spacecraft 6019

- Holdeman, J.T., Jr.**  
A method for the approximation of functions defined by formal series expansions in orthogonal polynomials 9210
- Holden, J.T.**  
A class of exact solutions for finite plane strain deformations of a particular elastic material 3107  
On the stress singularities associated with a heat source situated on the surface of a sphere 6535
- Holder, D.W.**  
*See* Pearcey, H. H. 2667
- Holister, G.S.**  
The production of high-density moire grids 2508
- Holland, J.Z.**  
Joint density functions of turbulent variables in the atmospheric boundary layer 2146
- Holland, L.**  
*See* Priestland, C. 2648
- Hollander, Tj.**  
Photometric measurements on the deviations from the equilibrium state in flames 3736
- Holler, H.K.**  
Water and gas tests in a new universal testing facility for hydraulic turbomachine 1924
- Holley, E.R.**  
Unified view of diffusion and dispersion 9631
- Holliday, F.R.**  
Collecting fatigue-design information with "in car" measuring systems 6147
- Hollister, J.C.**  
*See* Gray, R.L. 8233
- Hollrah, R.L.**  
*See* Buettner, D.R. 2321
- Holman, J.P.**  
*See* McGinnis, F.K., III 8942
- Holmboe, E.L.**  
The effects of viscous shear on transients in liquid lines 474
- Holston, A., Jr.**  
Buckling of inhomogeneous anisotropic cylindrical shells by bending 5978  
Stability of inhomogeneous anisotropic cylindrical shells containing elastic cores 8524
- Holt, A.C.**  
Two theoretical considerations for the ultrasonic measurement of third-order elastic constants 2444
- Holt, A.G.J.,**  
A modified transfer function obtained from the commutating contact of an  $N$ -path filter 9230
- Holt, J.F.**  
*See* Chung, P.M. 6273
- Holt, M.**  
The collapse of an imploding spherical cavity 1071  
*See also* Chan, B.C. 2904
- Holton, G.**  
Ultrasonic-velocity measurements in water at pressures to 10,000 kg/cm<sup>2</sup> 2108
- Holubec, I.**  
Elastic behavior of cohesionless soil 6053
- Holy, Z.J.**  
An efficient iterative method for the general static thermoelastic sphere problem 8198  
The inversion transformation for the solution of static thermoelastic problems with variable heat transfer 9075  
*See also* Thompson, J.J. 9085
- Hom, K.**  
Composite materials for pressure hull structures 9590
- Homsy, G.M.**  
Transient flow near a rotating disk 2616  
Centrifugally driven thermal convection in a rotating cylinder 7236
- Honda, H.**  
*See* Nishikawa, K. 4539
- Honda, K.**  
*See* Konaga, T. 2486  
Konaga, T. 6953  
Konaga, T. 6955
- Honda, M.**  
An analysis of second-order effects on laminar boundary-layer flow 7126
- Honda, T.**  
Automatic control of pure integral process with dead-time: An application of sampling controller and an adjusting method of its parameters 826
- Hongladaromp, T.**  
Analysis of elastic-plastic grid systems 323
- Honji, H.**  
*See* Taneda, S. 3496  
*See* Taneda, S. 5308
- Honnell, P.M.**  
Nonlinear control system dynamics on the matrix computer 4864
- Hood, C.G.**  
*See* Lamb, J.P. 4404
- Hoof, J.P.**  
The maneuverability of ships on a straight course 5705
- Hoogstraten, H.W.**  
Dispersion of nonlinear shallow water waves 7171
- Hook, D.E.**  
*See* Beatty, M.F. 8504
- Hooke, C.J.**  
An approximate solution for the effect of "shear lag" in the measurement of residual stresses using a photoelastic gage 286
- Hooke, F. H.**  
Some thoughts on cumulative fatigue damage theory 6116
- Hooper, F. C.**  
*See* Andrews, D. G. 4536  
Andrews, D. G. 8932
- Hooper, G. T. J.**  
*See* Strawbridge, D. R. 9651
- Hooper, L. J.**  
*See* Dziallas, J. W. 3646
- Hoot, T. G.**  
*See* Lindgren, E. B. 1064
- Hopkins, E. J.**  
Summary and correlation of skin-friction and heat-transfer data for a hypersonic turbulent boundary layer on simple shapes 8072
- Hopkins, H. G.**  
The method of characteristics and its application to the theory of stress waves in solids 6040  
*See also* Al-Hassani, S. T. S. 9477
- Hopkins, V.**  
*See* Kremith, R. D. 4790
- Hoppe, J. C.**  
Rotational and vibrational temperature measurements in the 12-inch hypersonic ceramic-heated tunnel 1933
- Hoppensteadt, F.**  
Asymptotic series solutions for nonlinear ordinary differential equations with a small parameter 8313
- Hoppmann, W. H., II**  
Oscillating rectilinear fluid flow generator 7083
- Hoppner, H.**  
Optimum engine and wing parameters for fighter planes 4619
- Horan, J. J.**  
Spacecraft infrared imaging: Systems engineering aspects 1226  
Spacecraft infrared imaging: Principles and applications 1227
- Horgan, C. O.**  
*See* Knowles, J. K. 7597
- Horikawa, K.**  
On the atmospheric stress corrosion cracking of low-alloy high strength steels and stainless steels 2494  
*See also* Okumura, T. 9520
- Horler, H.**  
An integral method of characteristics for simple problems of unsteady gasdynamics 6279
- Horlock, J. H.**  
Vorticity transfer and production in steady inviscid flow 5290  
*See also* Shaalan, M. R. A. 3597
- Horn, K. P.**  
Radiative behavior of a shock-heated argon plasma flow 1298
- Horn, P. J.**  
Gas tungsten-arc spot welding in the manufacture of energy absorbing steering columns 7920
- Hornbeck, R. W.**  
Viscous flow in a short cylindrical vortex chamber with a finite swirl ratio 6258
- Hornberger, G. M.**  
*See* Remson, I. 6550
- Horne, M. R.**  
Stability of columns supported laterally by side rails 8500  
The structural setting and operation of large paraboloid radio antennae for optimum performance 8694

- Horne, M. R.** (*Continued*)  
*See also* Montague, P. 5932
- Horne, R. S.**  
 Development of a semiautomatic fatigue-evaluation system for transport aircraft 5193
- Horner, D. A.**  
*See* Pochop, L. O. 2149
- Hornung, A.**  
 Influence of the circular running accuracy of milling cutters on productivity and tool costs 2470
- Horowitz, J. M.**  
*See* Nevill, G. E., Jr. 1913
- Horsky, J.**  
 The gravitational field of planes in general relativity 3105
- Horstman, C. C.**  
 Hypersonic viscous interaction of slender cones 5392
- Hortobagyi, F.**  
 Some test results obtained with a high-rate centrifugal compressor 1916
- Horton, T. R.**  
*See* Jensen, V. G. 3570
- Horton, W. H.**  
 Experimental observations on the instability of circular cylindrical shells 6789
- Horz, E.**  
*See* Bohm, F. 7577
- Hosking, R. J.**  
 Stability of a self-gravitating plasma cylinder including Hall effect 8154  
 Rayleigh-Taylor problem for a Hall plasma 9873
- Hoskins, E. R.**  
 A medium-scale direct friction experiment 1420  
 Strain rosette relief measurements in hemispherically ended boreholes 8604  
 The failure of thick-walled hollow cylinders of isotropic rock 9497
- Hosokawa, I.**  
 A functional treatise on statistical hydromechanics with random force action 4420
- Hosono, K.**  
*See* Okubo, H. 4937
- Hossard, A.**  
 Combustion and heat transmission under pressure 2019
- Hottel, H. C.**  
*See* Becker, H. A. 8011
- Houard, R.**  
*See* Legendre, R. 6864
- Houghton, D. D.**  
 Nonlinear shallow fluid flow over an isolated ridge 2588  
 Effect of rotation on the formation of hydraulic jumps 9980
- Houghton, G.**  
 Particle retardation in vertically oscillating fluids 476  
 Particle and fluid diffusion in homogeneous fluidization 3823
- Houghton, J. E.**  
 Effect of interface geometry on the wear of graphite sliding against stainless steel 7450
- Houghton, W. T.**  
*See* Hamielec, A. E. 3495
- Hounkanlin, A. M.**  
*See* Dumargue, P. 8879
- Houpeurt, A.**  
 Recent experimental data on two-phase flow in porous media 2141
- Householder, A. S.**  
 Bigradients and the problem of Routh and Hurwitz 1452
- Housner, G. W.**  
 Analysis of accelerograms: Parkfield earthquake 707
- Houston, A.**  
*See* Barakat, R. 5428
- Houtz, R. E.**  
*See* Le Pichon, X. 9632
- Hovanesian, J. D.**  
 A new experimental stress-optic method: Stress-holo-interferometry 3357
- Howard, G. M.**  
 Sewing needle temperature: Part 1. Theoretical analysis and experimental methods 2760
- Howard, L.**  
*See* Seireg, A. 1660
- Howard, R. L.**  
 Alpha particle pressure gage for high altitude constant level balloon flights 1928
- Howarth, M. H.**  
 The design of high speed diesel engines 4574
- Howd, D.**  
 A review of plasma arc technology 2857
- Howe, J. T.**  
 Some fluid mechanical problems related to subsonic and supersonic aircraft 4617
- Howe, M. S.**  
 Nonlinear theory of open-channel steady flow past a solid surface of finite-wave-group shape 1907  
 Phase jumps 3591
- Howell, D. T.**  
*See* Campbell, J. F. 1144
- Howell, J.**  
*See* Mercier, J. 9095
- Howell, P. G.**  
 Experiments in the aerosol lubrication of power gearing 4798
- Howell, W. E.**  
*See* Moss, J. N. 8099
- Howes, M. A. H.**  
 The reaction of lead-tin solders with copper alloys 9612
- Howlett, J. T.**  
 A sinusoidal pulse technique for environmental vibration testing 6876  
*See also* Raney, J. P. 4144
- Hoydysh, W. G.**  
 An experimental investigation of hypersonic turbulent boundary layers in adverse pressure gradient 6297
- Hoyler, A.**  
 Vehicle test rig 2020
- Hrazdil, F.**  
 Technology of high-speed deformation 3319
- Hrouda, J.**  
 Two minimax-type methods for solving systems of nonlinear equations 9174
- Hrubec, R. J.**  
*See* Clough, W. R. 1725
- Hrushow, W. K.**  
 Euler's rotational equations for bodies with the inertia tensor varying due to mass redistribution and mass loss 7586
- Hrycak, P.**  
 Heat conduction with solidification in a stratified medium 5501
- Hsieh, P. F.**  
 Reduction of order of a system of linear nonhomogeneous ordinary differential equations 12
- Hsieh, T. Y.**  
*See* Pai, S. I. 9646
- Hsiu-fen, K.**  
 A model of a waveguide layer lying on a half-space with a different velocity of propagation 2110
- Hsu, C.-C.**  
 A method of solution for higher approximation of boundary-layer flows 2651
- Hsu, C. S.**  
 Equilibrium configurations of a shallow arch of arbitrary shape and their dynamic stability character 1651  
 On the final states of shallow arches on elastic foundations subjected to dynamical loads 7728
- Hsu, E. Y.**  
*See* Bole, J. B. 7167
- Hsu, F.-H.**  
 The influences of mechanical loads on the form of a growing elastic body 9155
- Hsu, J. C.**  
 Modern control principles and applications 2219
- Hsu, T.-M.**  
*See* Bauer, H. F. 6346
- Hsu, T. T. C.**  
 Ultimate torque of reinforced rectangular beams 4263
- Hsu, Y. Y.**  
 Analysis of boiling on a fin 564
- Hsueh, Y.**  
 Viscous fluid flow over a corrugated bottom in a strongly rotating system 3492
- Hu, P. N.**  
 Collision and ionization effects in a plasma sheath 2841
- Hu, W. C. L.**  
 Four-pole parameters for impedance analyses of conical and cylindrical shells under axial excitations 2419
- Hu, W. W.**  
 Transient solidification outside a cooled pipe with application to a solar Brayton heat receiver 1235



- Huang, A. B.**  
Slip coefficient of a gas 2642  
Nonlinear, rarefied Rayleigh's problem 2646  
Nonlinear rarefied Couette flow with heat transfer 3536
- Huang, C. L.**  
The energy function for anisotropic materials with couple stresses: Cubic and hexagonal systems 4935
- Huang, H.**  
Transient interaction of plane acoustic waves with a spherical elastic shell 8857  
*See also Farn, C. L. S.* 2102
- Huang, H. C.**  
Determination of slenderness ratios for design of heavy mill building stepped columns 3200
- Huang, H.-S.**  
*See Yang, W.-J.* 8005
- Huang, H.-Y.**  
Variational approach to conical bodies having maximum lift-to-drag ratio at hypersonic speeds 8825
- Huang, J. H.**  
Fluid flow in porous media: Diffusion and flow of nitrogen gas in natural rocks 6546
- Huang, J.-Y.**  
*See Miele, A.* 6690
- Huang, N. C.**  
Dynamic snap-through of imperfect viscoelastic shallow arches 1653  
Optimal design of an elastic column of thin-walled cross section 2381  
Optimum critical impulse for snap-through in systems of one degree of freedom 4112  
Optimal design of elastic structures for maximum stiffness 7865
- Huang, T.**  
Buckling and lateral vibration of drill pipe 6833
- Huang, T. C.**  
Orthogonality and normalizing conditions of normal modes and forced vibrations of Timoshenko beam 176
- Huang, Y. H.**  
Chart for determining equivalent single-wheel loads 5876
- Huang, Y. K.**  
A thermodynamic analysis for the Gruneisen solid under high pressure 3643
- Huber, C. I.**  
Linear programming: Z-transform design of digital controllers for regulator systems 5814
- Huber, R. W.**  
*See Goode, R. J.* 4247
- Hubert, J.**  
Plane and axisymmetric transonic flows far away from a wall having a break in contour 9661  
Asymptotic study of sonic flow of a viscous fluid at a great distance of a plane obstacle 9664
- Hubka, W. F.**  
*See Bothell, L. E.* 6897
- Hucke, E. E.**  
*See Dunlap, R. W.* 294
- Huddle, J. R.**  
*See Aoki, M.* 8357
- Huddleston, J. V.**  
A numerical technique for elastica problems 6750  
Finite deflections and snap-through of high circular arches 7729
- Hudson, J. A.**  
Tensile strength and the ring test 7664
- Hudson, J. D.**  
*See Dennis, S. C. R.* 5486
- Hudson, J. L.**  
Convection near a cooled disk rotating with its environment 8913  
*See also Homsy, G. M.* 2616  
*Homsy, G. M.* 7236
- Hudson, W. R.**  
A direct computer solution for slabs on foundation 1625  
Discrete-element analysis for discontinuous plates 6161
- Huelke, D. F.**  
An experimental study in bio-ballistics: Femoral fractures produced by projectiles 4803  
An experimental study in bio-ballistics: Femoral fractures produced by projectiles: Part 2, Shaft impacts 9998
- Huetz, J.**  
*See Senechal-Couvercelle, M.* 1977  
*Senechal-Couvercelle, M.* 8065
- Huff, R. G.**  
Variation of convective heat-transfer coefficient around a simulated rocket cooling tube section 8062
- Huff, W. R.**  
Cohesion index of coal for gravity flow through orifices 1382
- Huffington, J. D.**  
The frictional method of measuring contact area between surfaces and its relation to the surface microtopography of some abraded metals and polymers 8296
- Huffman, J. K.**  
*See Bushnell, D. M.* 1103
- Hugel, H.**  
Self-magnetic effect in arcjet engines 2838  
Investigations on plasma thrusters with thermal and selfmagnetic acceleration 5557
- Huggins, W. H.**  
*See McDonough, R. N.* 5795
- Hughes, B. P.**  
The impact strength of concrete using Green's ballistic pendulum 8666  
*See also Evans, E. P.* 2531
- Hughes, J. E.**  
*See Moseley, W. C., Jr.* 1891
- Hughes, J. M.**  
Computer analysis of multi-storey buildings containing frames of different characteristics 6183
- Hughes, P. C.**  
Geometrical properties in state-time space of linear differential equations with periodic coefficients 47  
Optimum transient riddance in damped linear systems 57
- Hughes, P. S.**  
*See DeVost, V. F.* 241
- Hughes, W. F.**  
*See Chen, C. P.* 2054
- Hughmark, G. A.**  
Mass and heat transfer from rigid spheres 539
- Huilgol, R. R.**  
Finite oscillations of a spherical cavity in radially isotropic elastic materials 965  
A second-order fluid of the differential type 7024  
Dislocation of spherical sector in finite elasticity 7593
- Hulse, C.**  
Aerodynamics and heat transfer in an oil-fired marine boiler: A model study 5509
- Hult, J.**  
Continuum theory of plastic deformation 8433
- Hummel, D.**  
Flow past a sharp edged slender delta wing with large angle of attack 9749
- Humphry, D. E.**  
*See Dannenberg, R. E.* 2744
- Hundhausen, A. J.**  
Plasma flow pattern in the Earth's magnetosheath 8253
- Hung, J. C.**  
*See Irwin, J. D.* 3956
- Hung, N. D.**  
*See de Veubeke, B. F.* 7869
- Hung, R.-J.**  
*See Niu, K.* 1302
- Hung, T.-K.**  
*See Giaquinta, A. R.* 7026
- Hung, Y. C.**  
The effect of a spherical inclusion in an anisotropic solid 1589
- Hunt, B. L.**  
An examination of the method of regional averaging for radiative transfer between concentric spheres 5495
- Hunt, G. E.**  
The transport equation of radiative transfer with axial symmetry 3689  
Radiative transfer in a homogeneous cylindrical atmosphere 8920
- Hunt, G. R.**  
The behavior of spectral features in the infrared emission from particulate surfaces of various grain sizes 3700
- Hunt, J. C. R.**  
Some electrically driven flows in magnetohydrodynamics: Part 1, Theory 2028  
Some electrically driven flows in magnetohydrodynamics: Part 2, Theory and experiment 3756  
Three-dimensional MHD duct flows with strong transverse magnetic fields: Part 1, Obstacles in a constant area channel 6455

- Hunt, J. L.**  
See Jones, R. A. 8018
- Hunt, K. H.**  
Screw axes and mobility in spatial mechanisms via the linear complex 3431
- Hunt, W. A.**  
Optimization of pipelines transporting solids 7406  
See also Barnard, A. C. L. 1440
- Hunter, B. L.**  
Thermoelastic bowing of composite cylindrical fuel rods 6534
- Hunter, J. H.**  
Stability of simple cuttings in normally consolidated clays 4205
- Hunter, N. F., Jr.**  
Control stabilization for multiple shaker tests 827
- Hunter, S. C.**  
The transient temperature distribution in a semi-infinite viscoelastic rod subject to longitudinal oscillations 2936  
The solution of boundary value problems in linear viscoelasticity 7634
- Huntington, R. L.**  
See Turpin, J. L. 3841
- Hundey, E.**  
The response analysis of linear multivariable systems by an extension of the serial/matrix technique 8360
- Huppert, H. E.**  
On Kelvin-Helmholtz instability in a rotating fluid 5435
- Hurlbut, F. C.**  
Application of the Nocilla wall reflection model to free-molecule kinetic theory 431
- Hurle, I. R.**  
Measurements of hydrogen-atom recombination rates behind shock waves 3730
- Hurley, D. G.**  
The emission of internal waves by vibrating cylinders 9766
- Hurley, F. X.**  
Leeward surfaces in hypersonic viscous interaction 1108
- Hurrass, K.**  
The measurement of flight trajectories of small rockets with the tracking radar of DFL 9037
- Hurtubise, R. A.**  
Sample sizes and confidence intervals associated with a Monte Carlo simulation model possessing a multinomial output 8328
- Husak, A.**  
See Krokosky, E. M. 4211
- Husar, R. B.**  
Patterns of free convection flow adjacent to horizontal heated surfaces 1975
- Hussain, M. A.**  
Cavitation at the ends of an elliptic inclusion inside a plate under tension 5848
- On the detachment of the ends of microfibers from the matrix due to tension in the composite 6705
- Hussey, R. G.**  
See Folse, R. F. 9652
- Huszar, I.**  
Calculation of the force system of arch-bound commutators 2354  
The calculation of the system of forces in double shrink-ring commutators 6200
- Hutchinson, A. C.**  
Machines can walk 9168
- Hutchinson, A. W.**  
Measurement of dynamic characteristics of full-scale plant using random perturbing signals: An application to a refinery distillation column 3970
- Hutchinson, J. R.**  
Axisymmetric vibrations of a solid elastic cylinder encased in a rigid container 6009  
Higher modes of longitudinal wave propagation in thin rods 6026
- Hutchinson, J. W.**  
Singular behavior at the end of a tensile crack in a hardening material 1722  
Plastic stress and strain fields at a crack tip 4963
- Hutka, V.**  
Approximate method for calculating the second-order correlation moments of a steady turbulent flow 8812
- Hutson, V.**  
A note on an integral equation occurring in thermoelasticity 9073
- Hutt, J. M.**  
See Brown, J. E. 163
- Hutton, J. F.**  
Viscoelastic relaxation spectra of lubricating oils and their component fractions 1796
- Hutton, P. H.**  
Acoustic emission in metals as an NDT tool 8673
- Hwang, C.**  
Saturn V component vibration tests using segmented shell specimens 5091
- Hwang, G.-J.**  
See Cheng, K. C. 9821
- Hwee, M. O.**  
See Leissa, A. W. 177
- Hyakutake, H.**  
Photoelastic investigation of residual stresses in thermoplastic rods 5213
- Hylarides, S.**  
Estimation of the eigenfrequencies of a ship's double bottom with a sandwich theory 2411  
Finite element technique in ship vibration analysis 6018
- Hyler, W. S.**  
See Bert, C. W. 6999
- Hyman, F. L.**  
See Wilson, G. M. 524
- Hyson, P.**  
The tungsten wire temperature sensor 8258
- Iakovlev, G. N.**  
See Ivanilov, Iu. P. 5584
- Iakushev, E. M.**  
See Glikman, L. G. 2286
- Iakushin, V. I.**  
The spectrum of small perturbations of motion of a fluid between rotating spherical surfaces 3497
- Ibanescu, I.**  
See Irimiciuc, N. 7570
- Ibbetson, A.**  
See Hide, R. 3501
- Ibele, W. E.**  
See Eckert, E. R. G. 2767  
See Desmond, R. M. 7211
- Ibragimov, F. M.**  
Heat transfer in motion of a viscoplastic fluid between two rotating cylinders 5264
- Ibragimov, I. A.**  
The central limit theorem for sums of functions of independent variables and sums of the form  $\sum f(2^k t)$  7506
- Ibragimov, M. Kh.**  
Calculation of hydraulic resistivity coefficients for turbulent fluid flow in channels of noncircular cross section 4322
- Ibrahim, A.-B. K.**  
Travel-time curves and upper-mantle structure from long period  $S$  waves 1383
- Ibrahim, S. H.**  
See Das, T. R. 9800
- Ibraimov, D. I.**  
Use of the digital computer "Dnepri" as a spectrum analyzer 1500
- Ichikawa, M.**  
See Yokobori, T. 2478  
See Tsuboi, A. 5790
- Ichimaru, K.**  
See Hirano, F. 8287
- Ichimiya, T.**  
See Dote, T. 2063
- Ichimura, I.**  
Measurements of precipitation particles by using metal foil and preliminary results of the flight observation 7439
- Ichije, T.**  
An example of heat transfer at the air-sea boundary over the Gulf Stream during a cold air outbreak 3855
- Idelchik, I. E.**  
Study of the gas admission and discharge systems of an electrostatic precipitator 3827
- Idriss, I. M.**  
Finite element analysis for the seismic response of earth banks 1718  
See also Seed, H. B. 6906
- Iernetti, G.**  
A cell for ultrasonic cavitation experiments 4698

- Iesan, D.  
Variational principles in the theory of coupled thermoelasticity 2928  
Thermal stresses in nonhomogeneous elastic bars 7390  
*See also* Ciobanu, Gh. 2937
- Iffly, R.  
*See* Houpeurt, A. 2141
- Ifrim, M.  
A simplified method for determining with a digital computer the dynamic characteristics of storeyed structures 4274
- Igarashi, J.  
*See* Aoshima, N. 6901
- Igarashi, S.  
Generalized form of a skeleton curve of steel frames: Part 1, Role of strain hardening in plastic theory of steel structures 5220
- Igliev, A.  
Axisymmetric flows with a free boundary 5286
- Ignat, M.  
Generalized Green's formulas of magneto-fluid-dynamics in the case of slow motion for a compressible fluid 597  
On the magnetohydrodynamic waves in a cylindrical fluid mass 3763
- Ignatov, M. O.  
Observations on the Green matrix for fundamental problems of the theory of elasticity 9299
- Iguchi, A.  
Heat and mass transfer from a rotating disk in a cylinder 1249  
Heat and mass transfer from a rotating disk in an open environment 1999
- Iguchi, M.  
*See* Fukuzawa, K. 3466
- Iida, H. T.  
A Stokes-like region around a slightly yawed needle in the hypersonic strong-interaction regime 7102
- Iida, K.  
*See* Hamada, M. 3407
- Ikawa, N.  
*See* Tanaka, Y. 6923
- Ikegami, K.  
*See* Shiratori, E. 7647
- Ikegami, Y.  
*See* Nakano, A. 6516
- Ikeuti, M.  
*See* Mashima, Y. 5660
- Ikrath, K.  
Instrumentation for 80-Hz seismic communications 8238
- Ikui, M.  
Approximate solution of the vibration of cantilever blade 190
- Ikui, T.  
*See* Muroaka, K. 1299
- Ilchenko, P. T.  
Modelling temperature distributions in steam turbine casings on two-dimensional network models 7523
- Study of the thermal state of steam turbine rotors under transient conditions 9848
- Ilichev, V. I.  
*See* Shalnev, K. K. 8174
- Ilin, V. A.  
The synthesis of a trajectory of close flight around the Moon with the return to the Earth's atmosphere 5613
- Iljina, L. G.  
Investigation of a special case of motion of a free gyrost in a central Newtonian force field 3101
- Ilott, G. P.  
*See* Mabey, D. G. 5409
- Ilyashevich, E. I.  
*See* Vinokurov, E. F. 5155
- Ilyushin, A. A.  
On the longtime strength of polymers 4961
- Ilyushko, V. N.  
*See* Volkov, A. P. 4946
- Im, C. S.  
*See* Hershey, D. 9655
- Imachi, I.  
On frictional viscosity in vibrating systems 948
- Imachi, M.  
*See* Onishi, I. 9616
- Imad, F. P.  
Finding the stability and sensitivity of large sampled systems 3054
- Imai, K.  
*See* Masumoto, I. 6208
- Imamoto, H.  
*See* Iwasa, Y. 3556
- Imani, K.  
*See* Mori, Y. 9883
- Imedashvili, K. A.  
Dynamic investigation of differential toothed mechanisms with non-mechanical closing members 8724
- Inaba, S.  
A study of the numerical contouring control system of machine tools, which uses electrohydraulic-pulse motors as its main part 831
- Ince, L. P.  
Effects of low-intensity acoustical stimulation on visual thresholds 4814
- Indenbom, V. L.  
New class of exact solutions to the biharmonic problem for a half-band Physical foundation theory 5855  
5902
- Ingard, K. U.  
Acoustic nonlinearity of an orifice 1358  
*See also* Morse, P. M. 4658
- Inger, G. R.  
Massive blowing into simple two-dimensional and axisymmetric shear flows 7140
- Ingerle, K.  
The elastica under a uniformly distributed normal load 8456
- Ingham, D. B.  
Mangler's transformation in magnetogasdynamics 4605
- Ingraham, T. R.  
Continuous processing and process control 4882
- Ingul'tsov, V. L.  
The problem of stability of compressed three-layer plates 8515
- Inman, R. L.  
Computation of temperature at the lifted condensation level 7434
- Inman, R. M.  
Theoretical investigation of the effect of an internal heat source on turbulent liquid metal heat transfer in a channel with uniform heat flux 7248
- Innis, R. C.  
*See* Rolis, L. S. 9761
- Inomata, S.  
*See* Matsumoto, S. 2249
- Inoue, H.  
Vibration of truss 5087
- Inoue, J.  
On vibrotransportation and vibroseparation: Part 1, On the stability for the periodic motion of the jumping granular solid 1379
- Inoue, K.  
*See* Sawaragi, Y. 38
- Inoue, N.  
New type of high speed valve 2881
- Inoue, T.  
*See* Nishiyama, U. 6093  
*See* Taira, S. 6115
- Inouye, K.  
An application of approximate integral method to stagnation point flow with inviscid magnetic boundary layer 3764
- Inouye, M.  
*See* Stewart, D. A. 9678
- Inuishi, Y.  
*See* Yatsui, K. 680
- Inumaru, N.  
*See* Takagi, H. 6316
- Ionescu, D. G.  
On the general solution of equations of axisymmetrical motions of viscous fluids 4353
- Ionescu, M.  
*See* Stanculescu, G. 3160
- Ionescu, V.  
Variation theorem on conjugate thermoelasticity 9942
- Ionov, P. V.  
*See* Ambartsumyan, Ye. N. 622
- Ionushas, A.  
Equilibrium of a collected set of rotating objects 7581
- Iordache, I.  
*See* Grecov, D. 4559
- Iosifescu, M.  
Stochastic processes and applications in biology and medicine 1465
- Iosipescu, N.  
A new procedure for pure shear testing of concrete 3377
- Iosupovitch, C.  
*See* Koniak, D. 7040

- Ippen, A. T.  
Estuary and coastline hydrodynamics 7428  
*See also* Bourodimos, E. L. 3450  
Arndt, R. E. A. 6236  
Bourodimos, E. L. 8859
- Iqbal, M.  
Radiant heating of a solid spherical satellite 9908
- Irimiciuc, N.  
On the problem of holonomic bonds imposed on a systems of rigid solids: Part 1, Geometric bonds 7570
- Irmay, S.  
Failure criteria of plastic solids in stress invariant spaces 6744
- Iroba, M.  
Method of numerical analysis for three-dimensional elastic problems 6710
- Irons, B. M.  
Roundoff criteria in direct stiffness solutions 7871  
*See also* Anderson, R. G. 6815
- Irwin, A. W.  
*See* Coull, A. 7002
- Irwin, J. D.  
Methods for injection-error analysis and their comparison 3956
- Isaacson, L. K.  
Temperature laws for a turbulent boundary layer with injection and heat transfer 7289
- Isaakyan, S. M.  
Vortice formation in a flow under the gate 7038
- Isaev, A. E.  
Two-thrust transition into space-station orbit with "soft" encounter 2087
- Isakova, E. K.  
Long-time behavior of the solution of the Cauchy-Poisson problem 6334
- Isakovich, M. A.  
Longitudinal flexural modes in a slender rod 4164
- Isakson, G.  
Discrete-element plastic analysis of structures in a state of modified plane strain 9565
- Isanbaeva, F. S.  
*See* Kornishin, M. S. 1630  
Kornishin, M. S. 9343
- Isay, W. H.  
Theoretical foundation of hydro-acoustics of marine propellers 9054
- Iscovici, S.  
*See* Pnueli, D. 544
- Isermann, R.  
On the load dependence of the steam temperature control of the multivariable control system "drum boiler" 3061  
Methods for testing the dynamical behavior of industrial process controlled plants with determined input signals 8354
- Ishai, O.  
Effect of filler and voids on compressive yield of epoxy composites 4962
- Ishchenko, I. I.  
Investigation of deformations of fiberglass plates during stretching 1020
- Isherwood, D. P.  
*See* Williams, J. G. 2477
- Ishihara, T.  
Flow behaviors at sudden contraction of open channel 1067  
Nonsteady characteristics of hydrodynamic transmission 7014
- Ishii, H.  
*See* Higuchi, M. 6951  
Higuchi, M. 7836
- Ishii, M.  
*See* Yajima, M. 9513
- Ishii, T.  
*See* Uneya, K. 1799
- Ishii, Y.  
High-accuracy speed controller using pulse counting methods 5833
- Ishikawa, N.  
*See* Yamasaki, T. 6756
- Ishisaka, A.  
*See* Taira, S. 6728
- Ishiwatari, H.  
*See* Hirabayashi, H. 2165
- Ishizaki, K.  
*See* Kashiwamura, M. 6249
- Ishlinskii, A. Yu.  
Inertial control of ballistic rockets: Some theoretical questions 9905
- Ising, H.  
*See* Ingard, U. 1358  
Cremer, L. 2915
- Iskoldskii, A. M.  
Magnetic field capture and plasma containment in experiments with a collisionless shock wave 2040
- Ismailov, M. A.  
*See* Belonosov, S. M. 904
- Isoda, T.  
*See* Uneya, K. 1799
- Ispiry, R. A.  
Methods of investigating the process of ablation of material: Survey 571
- Ispolov, Yu. G.  
Suppression of parametric resonance which occurs during the motion of a hoisting vessel in a mine shaft 2416
- Isserlin, A. S.  
Investigation of flow-through turbulent torches 8965
- Isshiki, N.  
Experimental results of no. 1 supercharged test-boiler and its evaluation for marine use 4548
- Istratov, A. G.  
On the stability of spherical flame propagation 6436
- Itenberg, B. Z.  
*See* Verizhenko, E. P. 9421
- Itin, M. E.  
Relationship of the measuring-channel strain-gage sensitivity to the amplifier carrier frequency and the connecting line 7850
- Ito, I.  
Stress waves and dynamic characteristics of rocks under detonator's attack 5164
- Ito, M.  
Response of suspension bridges to moving vehicles 3245  
On the optimal power matching 7556  
*See also* Lin, T. H. 7650
- Ito, S.  
*See* Murakami, Y. 287
- Ito, T.  
Study on the self-sustained oscillation of a piston-type valving system: Part 1, Analysis of a simple valving system and some experiments 2596  
Study on the self-sustained oscillation of a piston-type valving system: Part 2, Analysis of a valving system with a capacity and some experiments 7938
- Ito, Y.  
*See* Matsunaga, M. 2168
- Itoh, S.  
Toroidal theta pinch collapse by the snowplow model 8128
- Iudovich, V. I.  
Stability of convection flows 8766  
*See also* Ukhovskii, M. R. 6243
- Ivakhnenko, A. G.  
Cybernetic predicting filters 3009  
On constructing an extremum controller without hunting oscillations 4000
- Ivan, C.  
*See* Pietraru, V. 3839
- Ivanchenko, F. K.  
*See* Bezvershenko, I. I. 4213
- Ivanchenko, I. F.  
*See* Yankovskii, M. I. 2122
- Ivanilov, Iu. P.  
Steady convection in the presence of an external magnetic field 5584
- Ivanov, A. G.  
Transition conduction zone in trinitrotoluene behind the front of a shock wave 2093  
The method of estimating the flow section of vortex burners 8963
- Ivanov, A. I.  
The first integral of an extremal problem for a point with variable mass 779
- Ivanov, G. S.  
Anchorage for fastening high-strength wire reinforcement 5234
- Ivanov, G. V.  
Effect of the form of initial flexures on the buckling of a cylindrical shell compressed along its axis 5059
- Ivanov, L. I.  
*See* Yanushkevich, V. A. 6543
- Ivanov, P. S.  
Design of foundations for machines with large dynamic loads 8587
- Ivanov, V. A.  
Theory of the propagation of stress waves in a semi-infinite viscoelastic rod 5120



- Ivanov, V. A. (Continued)**  
Thermal efficiency of power generating units operating with variable initial steam pressures 8970
- Ivanov, V. V.**  
Sound propagation in a wet porous medium 5673  
Application of the theory of boundary value problems and singular integral equations to automatic control theory 6647  
*See also Furman, A. V.* 5497
- Ivanov, Yu. R.**  
Static reaction of a radial gasodynamic bearing on the angular displacement of the axis of the journal 9150
- Ivanova, G. M.**  
Effect of a vibratory load on the creep and prolonged endurance of polymethylmetacrylate 4959
- Ivanova, V. S.**  
The problem of assessing the tendency of steel to brittle fracture 1004
- Ivanova, Z. A.**  
Experimental determination of the thermal conductivity of oxygen 3641
- Ivanovskii, M. N.**  
Thermal conductivity of the boundary layer in liquid-metal coolant flow 550  
Heat transfer with dropwise condensation of mercury vapor 8936
- Ivantsov, I. G.**  
Machine for testing the creep and long-term strength of metallic specimens 8669
- Ivashkevich, A. A.**  
Interpretation of experimental data on critical heat fluxes with liquids flowing in tubes 6395
- Ivchenko, I. N.**  
*See Yalamov, Yu. I.* 1858
- Ivlev, D. D.**  
On strain theories of plasticity for singular loading surfaces 2336  
*See also Ershov, L. V.* 4220  
*Bykovtsev, G. I.* 6738
- Ivovich, V. A.**  
Nonlinear vibration of a flexible thread during random steady inputs Autoparametric vibrations of vibration-isolated system with nonlinear elastic characteristic 3226
- Iwan, W. D.**  
Response of the bilinear hysteretic system to stationary random excitation 950  
Steady-state dynamic response of a limited slip system 6804
- Iwasa, Y.**  
Estimation of dispersion coefficients on free surface by means of particle simulation method 3556  
Hydraulic performances of a vertical gate to effluxes 6235
- Iwasaki, K.**  
*See Hsigitu, R. R.* 1375
- Iwasaki, M.**  
Experimental investigation of performance of a miniature schlieren system for use in a shock tube 1932
- Experiments on the performance of multiple diaphragm shock tube 3624  
Theoretical and experimental investigations of a propeller working at static condition 7188
- Iwashimizu, Y.**  
*See Tokuoka, T.* 2500
- Iwata, K.**  
Strain measurement by optical differentiation of cross grating 9546
- Iwayanagi, J.**  
A contribution to the magnetic measurement of stress in plastically deformed carbon steel 7849
- Iweins, P.**  
The asymptotic behavior of linear oscillations in a compressible homogeneous model 8034
- Iyengar, H. N.**  
Treatment of boggy nature of soils in the rear of right-flank and left-flank bunds: Musi project, Nalgonda District, Andhra Pradesh 1716
- Iyengar, K. T. S. R.**  
Thermal stresses in restrained rectangular plates 2115
- Iyer, K. R. P.**  
*See Rimrott, F. P. J.* 4092
- Izadi, M. V.**  
*See Nicholls, R. L.* 6064
- Izmailov, A. A.**  
The stability of a conical shell in a supersonic gas flow 9021
- J**
- Jack, H.**  
On the integrals of Hua and James 3924
- Jackson, C. M., Jr.**  
A method for determining surface pressures on blunt bodies of revolution at small angles of attack in supersonic flow 1102  
A method for determining the total drag of a pointed body of revolution in supersonic flow with turbulent boundary layer 7162
- Jackson, E. D., III**  
*See Bugliarello, G.* 387
- Jackson, H. W.**  
High-speed plasma diagnostics 1316
- Jackson, J. L.**  
Transport coefficients of composite materials 6385
- Jackson, J. W.**  
*See Dawson, V. C. D.* 8707
- Jackson, R.**  
*See Anderson, T. B.* 5658
- Jacob, C.**  
On the uniqueness of the determination of the second approximation of the compressible subsonic flow around a profile 7964  
On the theory of the thin wing 8823
- Jacob, K.**  
Calculation of incompressible flow past thick airfoils or cascades with tapered trailing edge 1876
- Jacobs, B. R.**  
Dynamic testing of full-scale Saturn launch vehicles 652
- Jacobs, M. Q.**  
Remarks on some recent extensions of Filippov's implicit functions lemma 1453
- Jacobs, P. W. M.**  
The thermal decomposition and ignition of mixtures of ammonium perchlorate + copper chromite 8966
- Jacobs, S. J.**  
An asymptotic solution of the tidal equations 466
- Jacobs, W. R.**  
*See Tsakonas, S.* 4450
- Jacobson, M. J.**  
Predicting buckling loads from vibration data 5958  
Stress and deflection of honeycomb panels loaded by spatially uniform white noise 9453  
*See also Seifer, A. D.* 7372
- Jacoby, S. L. S.**  
Design of optimal hydraulic networks 1065
- Jady, R. J.**  
Normal modes of decay of a magnetic field in magnetohydrodynamics 8984
- Jaeger, C.**  
Boundary shear in open-channel flow, energy and total momentum 7043
- Jaeger, H. E.**  
Strain, stress and flexure of two corrugated and one plane bulkhead subjected to a lateral, distributed load 5239
- Jaeger, J. C.**  
*See Hoskins, E. R.* 1420  
*Rosengren, K. J.* 6075
- Jaesche, J. R.**  
Automatic cutting tool temperature control 9511
- Jaffe, N. A.**  
Solution to the binary diffusion laminar boundary-layer equations with second-order transverse curvature 2654  
The transverse curvature effect on the incompressible laminar boundary layer for longitudinal flow over a cylinder 8797
- Jaffe, S.**  
A three-layer diffusion model as applied to unstable atmospheric conditions 6568
- Jagdish, K. S.**  
The vibration of cantilever bridges 4136
- Jahn, R. G.**  
*See Burton, R. L.* 7318
- Jahnke, H. D.**  
Experiments with water injection in an axial compressor 5446
- Jahoda, J. A.**  
*See Erdmann, J. C.* 3151
- Jain, G. S.**  
A comparative study of multi-underreamed pile with large diameter pile in sandy soil 9484

- Jain, K. V.  
On the ignition and extinction problems in forced convection systems 5526
- Jain, N. K.  
Torsional damped vibrations of an elastic half-space subject to an impulsive radial stress distribution 5071  
Elastic response of a circular plate 6831
- Jain, O. P.  
See Jain, V. K. 9584
- Jain, P. L.  
Effect of friction and production inaccuracies on the strength of metric screw-threads 1053
- Jain, R. K.  
See Kays, W. M. 1244
- Jain, S. K.  
Unsteady flow of gases through a semi-infinite porous medium 2138  
Unsteady flow of gases through a porous medium of pressure dependent permeability 6549
- Jain, V. K.  
Extinction criterion of a mono-propellant droplet burning in an atmosphere of inert 8967  
Design of skew slab bridges for I.R.C. loadings 9584
- Jakubowski, R.  
An algorithm for the simulation of dynamical systems by means of digital computers, based on signal-graph 3927
- James, D. W.  
The thermal diffusivity of ice and water between -40 and +60°C 5469  
Apparatus for determining dynamic modulus of elasticity and internal damping capacity 8668
- James, J. F. P.  
An air-flow procedure for determining the fineness of raw wool 6973
- James, T. K.  
Low-cycle fatigue of a glass-fabric-reinforced plastic laminate 2482
- Jameson, G. J.  
See Gottifredi, J. C. 2717
- Jamison, C. E.  
Viscoelastic properties of soft tissue by discrete model characterization 751
- Janak, J. F.  
Thermal expansion in a constrained elastic cylinder 9071
- Jancelewicz, B.  
Investigations on plastic strains intensity distribution using an orthogonal lattice 8645
- Janes, D. E.  
See Thomas, H. W. 5450
- Janeschitz-Kriegl, H.  
Symposium: Handling of viscous fluids: Part 3, Measuring techniques; 3, A membrane pressure gage for plastics, insensitive to temperature fluctuations 8876
- Janetzke, D. C.  
See Crouse, J. E. 9794
- Janicki, J. S.  
A force gage for measurement of longitudinal stresses in a blood vessel in situ 3891
- Janiszewski, T.  
Suspender tension method for bridge analysis 1044
- Jankowiak, W.  
An analysis of normal stresses in steel beams strengthened during the phase of loading 7659
- Jannot, M.  
Stability criterion of a boundary layer of natural convection on a plane vertical and isothermal wall 8809
- Janos, J. J.  
Forces and moments due to air jets exhausting parallel to large flat plates in a near vacuum 7114
- Janos, W. A.  
Solution of the nonsteady Vlasov equation for a class of beamwise initial distributions connected with ionic motors 9010
- Jansen, J.  
See Janeschitz-Kriegl, H. 8876
- Janssen, J. H.  
See Buiten, J. 8112
- Jante, A.  
Side-slip and cornering tests with models 1562
- Jarocki, W.  
Relation between bed and suspended loads in rivers 4339
- Jasiewicz, J.  
Mass transfer coefficients at the surface of a sphere under forced convection 2809
- Jaslow, H.  
Lift and drag of flat-top configurations of arbitrary cross section  
Aerodynamic relationships inherent in Newtonian impact theory 9756
- Jastrzebski, Z. D.  
Entrance effects and wall effects in an extrusion rheometer during the flow of concentrated suspensions 1058
- Jaumotte, A. L.  
Ram recovery of a flush intake for air cushion vehicles 4624  
Magnetohydrodynamic flow in pipes: Study of head losses 5599
- Javornicky, J.  
Plastic stress and strain concentration factors in a strip with a hole or notches under tension 2501
- Jawa, M. S.  
Torsional flow of certain anisotropic fluids 7927
- Jawtusch, V.  
See Kelm, S. 6478
- Jayaraman, N.  
See Das, S. C. 6924
- Jayawant, B. V.  
Multimodal and transitional behavior in second-order nonlinear systems 6662
- Jecmen, J.  
Analog model of the guidance system of zenith-controlled rockets 9049
- Jedlinski, W.  
See Frackiewicz, H. 4141
- Jefferies, K. S.  
See Leko, R. W. 4550
- Jefferis, J. A.  
Traction in elastohydrodynamic contacts: Part 1, Sliding friction between lubricated rollers 4786
- Jefferys, W. H.  
Perturbation theory for strongly perturbed dynamical systems: Part 1 4630
- Jeffrey, A.  
Lyapunov's direct method in stability problems for semilinear and quasilinear hyperbolic systems 8319  
See also Golecki, J. 6796
- Jeffreys, H.  
The energy of elastic strain in the earth 9297
- Jellison, J.  
Sliding friction of copper alloys in vacuum 1422
- Jelonek, Z. J.  
Control in some idealized constant-temperature chambers 3066
- Jeng, D.-T.  
See Meecham, W. C. 5401
- Jenkins, C. J.  
Diffraction gratings for moire-fringe strain analysis 1741
- Jenkins, D. R.  
Analysis of behavior near a cylindrical glass inclusion by scattered-light photoelasticity 5196
- Jenkins, J. L., Jr.  
A parametric study of blade-motion stability boundaries for an articulated rotor 4451
- Jenkins, R. O.  
Contact bounce in dry reed relays 3230
- Jennings, A.  
Frame analysis including change of geometry 1761
- Jennings, P. C.  
Equivalent viscous damping for yielding structures 211  
Vibration and soil-structure interaction tests of a nine-story reinforced concrete building 3413  
See also Nigam, N. C. 9115
- Jensen, E. J.  
See Brown, R. A. S. 1791
- Jensen, G. E.  
See Brown, R. S. 3747
- Jenson, V. G.  
Drag coefficients and transfer factors for spheres in laminar flow 3570
- Jeppson, R. W.  
Free-surface flow through heterogeneous porous media 8220  
Numerical solutions to free-surface axisymmetric flows 9635
- Jeromin, L. O. F.  
A transformation for compressible boundary layers with air injection 441
- Jessee, W. P.  
See Northam, G. B. 9847

- Jezek, J.  
See Sestak, J. 7048
- Jha, P. C.  
See Ghali, A. 322
- Jhunjhunwala, N.  
Equilibration of a uniform two-temperature mixture of Maxwell molecules 5460
- Jimma, T.  
See Kato, K. 9540
- Jingu, T.  
See Machida, S. 1750
- Jiri, M.  
Theory of a steady continuous flow of a compressible fluid 9691
- Jirsak, M.  
See Sestak, J. 7048
- Joga Rao, C. V.  
See Krishna Murty, A. V. 6836
- Johanson, J. R.  
The use of flow-corrective inserts in bins 3824
- Johansson, B.  
Lifting-line theory for subsonic shear flow 1879  
The influence of residual stresses on the critical load in lateral buckling 8497
- Johns, B.  
A boundary layer method for the determination of the viscous damping of small amplitude gravity waves 1150  
The damping of gravity waves in shallow water by energy dissipation in a turbulent boundary layer 8845
- Johns, D. J.  
Vibration studies of a ring-stiffened circular cylindrical shell 6008  
Static instability of rectangular orthotropic panels subjected to uniform in-plane loads and deflection-dependent lateral loads 8517
- Johns, W. R.  
See Dombrowski, N. 8896
- Johnson, A. I.  
See Hamielec, A. E. 3495  
Golding, J. A. 4557
- Johnson, C. D.  
Experimental study of nonprismatic folded plates 4088  
Optimal control of the linear regulator with constant disturbances 6676
- Johnson, C. P.  
See Clough, R. W. 2364
- Johnson, C. T.  
Influence of initial pressure and temperature on the speed of detonations in hydrogen-oxygen-nitrogen mixtures 4561
- Johnson, D. E.  
An efficient higher-order difference method for two-dimensional structures 8678
- Johnson, D. R.  
The evaluation of noise from freely flowing road traffic 663  
The subjective evaluation of sonic bangs 4670
- Johnson, G. W.  
See Brown, K. R. 3989  
Brown, K. R. 6689
- Johnson, H. A.  
See Soliman, M. 1968
- Johnson, J.  
A mechanical transducer for phallography 9171
- Johnson, J.  
See Henderson, K. A. 6849
- Johnson, J. L.  
See Winsor, N. 5571
- Johnson, J. N.  
Elastic precursor decay in quartzite for cylindrical and spherical flow 239
- Johnson, K. L.  
Traction in elastohydrodynamic contacts: Part 4, Shear behavior of elastohydrodynamic oil films at high rolling contact pressures 4789  
An experimental determination of the contact stresses between plastically deformed cylinders and spheres 4982  
See also Jefferis, J. A. 4786  
Bentall, R. H. 6721
- Johnson, L. G.  
Practical design problems 5235
- Johnson, M. R.  
Shock-induced flow interactions with transverse magnetic fields 624  
Use of detonable gas explosions for blast and shock studies 4653
- Johnson, M. W., Jr.  
Convergence of the finite element method in the theory of elasticity 2295
- Johnson, R. A.  
See de Boer, P. C. T. 4609  
Brookes, B. E. 7538
- Johnson, R. C.  
Creative design of epicyclic gear trains using number synthesis 2551  
Real-gas effects in critical flow through nozzles and thermodynamic properties of nitrogen and helium at pressures to  $300 \times 10^5$  Newtons per square meter (approx. 300 atm) 5359  
See also Dudzinski, T. J. 8874
- Johnson, R. L.  
Performance and analysis of seals for inerted lubrication systems of turbine engines 1780  
Effect of an electric field on boiling heat transfer 3704  
Shaft face seal with self-acting lift augmentation for advanced gas turbine engines 7180
- Johnson, R. S.  
Automation in pre-contract definition ship design 9589
- Johnson, R. W.  
Bulge formation in strip drawing with light reductions in area 9508
- Johnson, T. A.  
See Fowlkes, C. W. 3366
- Johnson, W.  
High-speed cratering in wax and plasticine 5131
- Plastic hinges in ring indentation in relation to ring rolling 6084  
High-speed blanking of steel 6912  
On the collapse load of some simple structures 6982  
An experimental investigation into the process of ring or metal tire rolling 8611  
See also Sowerby, R. 2349  
Caddell, R. M. 2465  
Poynton, W. A. 2472  
Sowerby, R. 3306  
Carrell, J. 6052  
Al-Hassani, S. T. S. 9477
- Johnson, W. W.  
A least-squares method of interpreting magnetic anomalies caused by two-dimensional structures 6557
- Johnsson, C.-A.  
On theoretical predictions of characteristics and cavitation properties of propellers 9795
- Johnston, B. M.  
Uncoupled dynamic thermal stresses in infinite flat plates with instantaneous and transient internal heating 9946
- Johnston, I. H.  
See Smith, D. J. L. 6451
- Johnston, J. D., Jr.  
See Wren, R. J. 1370
- Johnston, J. P.  
See Sagi, C. J. 7074
- Johnston, R. A.  
Acoustic and internal damping in uniform beams 8553
- Johnston, S. B.  
See Mattock, A. H. 6995
- Jolas, A.  
See Basque, G. 3780
- Jolly, W. D.  
Acoustic emission exposes cracks during welding 7859
- Jombock, J. R.  
Bending strength of aluminum formed sheet members 8514
- Jonas, E.  
See Lowe, J., III 7802
- Jones, B. A., Jr.  
See Woerner, J. L. 1801
- Jones, B. G.  
See Burchill, W. E. 4528
- Jones, B. W.  
See Gibbs, D. F. 3382
- Jones, D.  
See Newman, B. G. 7733
- Jones, D. G.  
See Cook, A. M. 7343
- Jones, D. I. G.  
Damping of multispan structures by means of viscoelastic links 6862  
See also Cannon, C. M. 5100
- Jones, D. L.  
Shock wave from a lightning discharge 2629  
See also Dryer, M. 3856
- Jones, D. S.  
A uniqueness theorem 1461

- Jones, D. T.  
See Griffiths, D. F. 7955
- Jones, E. E.  
See Brown, R. K. 4031  
Brown, R. K. 9283
- Jones, G. S.  
An example of optimal control 3994
- Jones, G. W., Jr.  
Aerodynamic forces on a stationary and oscillating circular cylinder at high Reynolds numbers 7075
- Jones, I. S. F.  
Aerodynamic noise dependent on mean shear 6512
- Jones, J. B.  
See Foss, J. F. 5317
- Jones, J. G.  
Gradient properties of a model of stationary random turbulence 4764  
A method for designing lifting configurations for high supersonic speeds, using axisymmetric flow fields 6314  
The design of compression surfaces for high supersonic speeds using conical flow fields 6315
- Jones, J. P.  
See Orloff, C. R. 6263  
Orloff, C. R. 8777
- Jones, J. R.  
Friction and wear of potentiometer contacts in vacuum 733
- Jones, J. R.  
Low-load oscillating tests of bonded solid lubricants and composites 4800  
On the streamline motion of incompressible viscous fluids in curved channels 5304  
The frictional behavior of solid lubricants at low speeds 5715  
Non-Newtonian effects in axially symmetric rotational flows of some elasticoviscous liquids 8729  
Non-Newtonian effects in flows of some elasticoviscous liquids in curved channels 8733  
A note on the motion of a viscous liquid in a rotating straight pipe 8765
- Jones, J. W.  
See Lundell, J. H. 2001
- Jones, L. E.  
Fluid mechanics, thermodynamics 5516
- Jones, N.  
Finite deflections of a simply supported rigid-plastic annular plate loaded dynamically 1697  
Finite deflections of a rigid-viscoplastic strain-hardening annular plate loaded impulsively 4181
- Jones, P. J.  
A tool for parametric analysis of complex isolation systems 9450
- Jones, R. A.  
Use of tetrafluoromethane to simulate real-gas effects on the hypersonic aerodynamics of blunt vehicles 8018  
See also Bushnell, D. M. 1103  
Stainback, P. C. 5396
- Jones, R. M.  
Equivalence between single-layered and certain multilayered shells 4087
- Buckling of circular cylindrical shells with multiple orthotropic layers and eccentric stiffeners 8523
- Jones, R. S.  
Flow of an elastico-viscous liquid in a corrugated pipe 351
- Jones, S. E.  
See Ames, W. F. 13
- Jones, T. G.  
See Glick, H. S. 7324
- Jones, W. D.  
See Doucet, H. 4594
- Jones, W. J. D.  
See Nathan, G. K. 3874
- Jones, W. L.  
Ray tracing for internal gravity waves 8841
- Jones, W. M.  
A simple ionic flowmeter for measuring very small rates of flow of air 7194
- Jonker, G. H.  
The application of combined conductivity and Seebeck-effect plots for the analysis of semiconductor properties 1195
- Jonsson, A.  
See Clemmedson, C.-J. 7476
- Jordan, C. A.  
Container effects in cushioned packages: Urethane foam corner pads 9452
- Jordan, F. L., Jr.  
See Barger, R. L. 7097
- Jordan, S.  
See Mallett, R. H. 9215
- Jorn, R.  
Rubber-metal elements for elastic motor mounts 1686
- Joseph, D. D.  
Subcritical instability and exchange of stability in a horizontal fluid layer 542  
Eigenvalue bounds for the Orr-Sommerfeld equation 2181  
See also Shir, C. C. 6248
- Joshi, N. E.  
A space-time functional formalism for magnetohydrodynamic turbulence 8998
- Joshi, R. K.  
The higher order Chapman-Cowling bracket integrals for the viscosity coefficient of multicomponent gas mixtures 1188
- Joss, J.  
See Aufdermaur, A. N. 8080
- Jossen, W. P. A.  
Vertical motions and bending moments in regular waves: A comparison between calculation and experiment 3863
- Joubert, P. N.  
See Brown, K. C. 7130
- Jourdain, M.  
The transverse stability of trawlers at large angles of inclination 2159
- Jovane, F.  
An approximate analysis of the superplastic forming of a thin circular diaphragm: Theory and experiments 4964
- Ju, F. D.  
A specimen for reversed shear deformations 6123
- Judovic, V. I.  
An example of the loss of stability and the generation of a secondary flow of a fluid in a closed container 1092
- Judy, R. W.  
See Goode, R. J. 4247
- Juhasz, F.  
Noise reduction by acoustic enclosures for internal combustion engines 1356
- Juhasz, J.  
Two-phase seepage 4744
- Jun, E. T.  
See Cochran, T. H. 8049
- Jung, R.  
Flow characteristics of flat rotatable flaps (butterfly valves) in rectangular ducts and circular pipes 6233
- Jungbluth, E. D.  
Intense interjunction strain in phosphorus-diffused silicon 299
- Junger, M. C.  
Normal modes of submerged plates and shells 5605  
Surface pressures generated by pistons on large spherical and cylindrical baffles 7366
- Junghanss, K.  
Calculating rotational shells of arbitrary meridian shape and variable wall thickness 6777
- Juricic, D.  
On the flight flutter testing: Flutter stability by the random excitation method 9025
- Jury, E. I.  
A nonlinear discrete system equivalence of integral pulse frequency modulation systems 3954
- Juster, V.  
See Pietraru, V. 3840  
Zaharescu, E. 7819
- Justice, J. A.  
See Langfelder, L. J. 5154

## K

- Kabaila, A. P.  
Instability of slender concrete columns 2383  
Stability of frames of nonlinear materials 5964
- Kabalevsky, A. N.  
Application of analog computing devices in statistical control problems 8356
- Kabelevsky, M. G.  
On application of deformation theory to the designing of turbine disks under complicated stress conditions 5030



- Kacker, S. C.  
Some properties of the two-dimensional, turbulent wall jet in a moving stream 7961  
The effect of slot height and slot-turbulence intensity on the effectiveness of the uniform density, two-dimensional wall jet 8101
- Kacprzynski, B.  
On a certain method of solving regression equations 9196
- Kaczkowski, Z.  
Temperature dependence of the piezomagnetic coefficients of ferrites 5651  
See also Gomulinski, A. 7710
- Kadashevich, Yu. I.  
On the influence of microstresses in the theory of plasticity 8444
- Kadlecek, V.  
The relationship of concrete strength in direct tension and the size and shape of specimens 6968
- Kadomtsev, B. B.  
Flute-type instability of plasma in toroidal geometry 611
- Kadota, S.  
See Hayashi, I. 7700
- Kadymov, Ya. B.  
Method of designing automatic control systems with distributed parameter elements for given speed 1498
- Kafengauz, N. L.  
Characteristics of the heat transfer to a turbulent fluid flow at supercritical pressure 1213
- Kagan, B. A.  
A three-dimensional model of the tidal flow in an ice-covered sea 3849
- Kaganov, M. I.  
See Adamenko, I. N. 1198
- Kaganov, S. A.  
The stability of the steady-state solutions in the theory of thermal explosions 2096
- Kagawa, Y.  
Nonaxially symmetric vibrations of sandwich cylindrical shells 1676  
New method for the measurement of a small mechanical driving-point impedance 2420  
On the dynamical properties of helical springs of finite length with small pitch 4300
- Kagerl, H.-G.  
Information contained in the deviation of the position of the involute generating line in the helical gears 8708
- Kagiwada, H. H.  
An initial-value method suitable for the computation of certain Fredholm resolvents 6619
- Kahn, A.  
See Zweig, A. 5046
- Kahn, D.  
Longitudinal wave propagation in viscous fully ionized plasmas 8995  
See also Dunphy, K. H. 2860  
Francis, S. H. 4587
- Kahn, M. E.  
See Kane, T. R. 7752
- Kaibara, M.  
See Fukada, E. 757
- Kaibyshev, O. A.  
Peculiarities of the mechanism of fast deformations in hexagonal-closely-packed metals 892
- Kaifas, F.  
Laboratory tests for measuring the torque by photoelastic method 2502
- Kaiser, F.  
Practical solutions for sieving and (air) sifting problems 7418
- Kakhkhorov, A.  
Determination of the perturbances of coordinates in hyperbolic motion from the form of the planet 9901
- Kakutani, T.  
Reductive perturbation method in nonlinear wave propagation: Part 2, Application to hydromagnetic waves in cold plasma 5572
- Kalaba, R. E.  
See Kagiwada, H. H. 6619
- Kalachev, A. I.  
See Zverev, V. A. 6523
- Kalandarov, K. Kh.  
Equations of motion of plane hinged mechanisms with elastic connections 9607
- Kalandiya, A. I.  
On the numerical solution of plane problems in the theory of elasticity 5856
- Kalashnikov, V. V.  
Operating stability of complex systems 2233
- Kalatourov, B. A.  
Investigations of ultimate strength and crack resistance of prestressed reinforced concrete members subjected to nonaxial tensile force with small eccentricities 2525
- Kaldjian, M. J.  
Earthquake response of a Ramberg-Osgood structure 4291
- Kalinin, A. V.  
Estimate of the phase-velocity dispersion in absorbing media 2432
- Kalinin, V. V.  
See Kalinin, A. V. 2432
- Kalinowski, L.  
Natural vibration of a hinged rotor blade of a helicopter 8550
- Kalish, S.  
Heat transfer to NaK flowing through un baffled rod bundles 8045  
See also Chen, J. C. 2949
- Kaliski, S.  
Surface waves in piezoquartz 232  
Eikonal and asymptotic equations for a moving elastic medium 1693  
The influence of strain hardening in the problem of propagation of plane loading and unloading biwaves in an elastic-visco-plastic semi-infinite body 1701
- Cerenkov generation of thermal waves by means of slowed down electromagnetic waves 2124  
The problem of parametric magnetoelastic resonance for a perfect conductor 3217  
On resonance phenomena in unbounded systems 8572
- Kaliszer, H.  
Application of ultrasonic technique in grinding processes 6091
- Kaliszky, S.  
On the optimum design for reinforced concrete structures 5226
- Kalker, J. J.  
The analysis of the motion of the balls in an unlubricated angular contact thrust ball bearing 6583  
The tangential force transmitted by two elastic bodies rolling over each other with pure creepage 7459
- Kalmykov, A. A.  
See Khizhnyak, N. A. 2051
- Kalmykov, I. I.  
See Dubrovskii, I. S. 3619
- Kalnins, A.  
Static, free vibration, and stability analysis of thin, elastic shells of revolution 7707
- Kaloerov, S. A.  
Stressed state of an anisotropic half-plane with an elliptical hole close to the edge 97
- Kaluzhin, A. A.  
See Bykovtsev, G. I. 2434
- Kalyaev, A. V.  
Numerical methods of Stieltjes integration by digital integrators 3019
- Kalyanam, M.  
Design characteristics of an electrostatic Langmuir probe for nitrogen plasma 4614
- Kamalvand, H.  
See Lu, L.-W. 3197
- Kambe, T.  
The stability of an axisymmetric jet with parabolic profile 8767
- Kameda, H.  
See Goto, H. 338
- Kamei, A.  
On the stress distribution ahead of a propagating elastic brittle crack 1723
- Kamel, A. M.  
Shock pressures caused by waves breaking against coastal structures 3592
- Kamel, M. M.  
Apparatus for continuous flow mixing of explosive gases 509
- Kamenetskii, V. R.  
See Kesselman, P. M. 3637
- Kamenkovich, V. M.  
On the coefficients of eddy diffusion and eddy viscosity in large-scale oceanic and atmospheric motions 2970  
Normal modes of oscillation of a multilayered rotating liquid 3583
- Kameswara Sarma, P.  
Prediction of wall temperature in the post-burnout region 4514

- Kamimoto, G.**  
Velocity measurement in hyper-sonic gun tunnel 4457
- Kamimura, T.**  
See Hasegawa, A. 6470
- Kaminskii, A. A.**  
The steady growth of cracks in viscoelastic media 5184  
See also Savin, G. N. 1726  
Grebenskin, G. G. 4221
- Kamiya, N.**  
See Ohashi, Y. 5929
- Kammel, G.**  
Influence of axial deformation on the elastic stability of circular rings 3203  
Membrane stress state of a spiral tube-like surface 8470
- Kamo, N.**  
A research on vaporization of liquid fuel injected into swirl air flow in horizontal circular pipe 4543
- Kana, D. D.**  
Parametric coupling in a nonlinear electromechanical system 5077  
An experimental model for studying dynamic responses of a rotating beam under spatially distributed random excitation 8557  
See also Chu, W. -H. 1912  
Hu, W. C. L. 2419
- Kanamori, H.**  
See Anderson, D. L. 5163
- Kanarchuk, V. E.**  
A transistorized instrument for determining ferromagnetic wear products in oil: Exchange of experience 3875
- Kanazawa, K.**  
Investigation of thermal fatigue: Behavior of cracks during thermal fatigue 7398
- Kanazawa, T.**  
Plastic deformation and rupture of thin circular plate under lateral pressure: Part I. Studies on rupture disk 7723
- Kanbe, S.**  
See Konishi, I. 5870
- Kanda, N.**  
See Fujii, S. 4892  
Fujii, S. 7553
- Kanda, T.**  
See Murota, A. 9979
- Kandler, P.**  
Numerical treatment of Saint-Venant's torsion problem for arbitrary cross sections by means of integral equations 9309
- Kane, T. R.**  
On a class of two-degree-of-freedom oscillations 7752  
Dynamics 8386  
See also Wenglarz, R. A. 7579
- Kang, S. -W.**  
Integral method for the stagnation region of a hypersonic viscous shock layer with blowing 5330
- Kaniel, S.**  
Smoothness of weak solutions of the Navier-Stokes equations 379
- Kant, M.**  
Determination of the fundamental parameters of a magnetohydrodynamic induction generator 8156
- Kanta, J.**  
Problems of measurement in experimental pneumatics 7190
- Kantorovich, L. V.**  
See Akilov, G. P. 1511
- Kanzawa, A.**  
Measurements of viscosity and thermal conductivity of partially ionized argon plasmas 2878  
Heat transfer from plasma to solid wall with potential difference 4603
- Kao, G. C.**  
Damage prediction for open-frame structures subject to liquid propellant explosions 6993
- Kao, J. -S.**  
Bending of multilayer sandwich beams 2353  
Circular sandwich plates under eccentric load 7715
- Kao, J. T. F.**  
Theory and design of an absolute viscometer for low temperature-high pressure applications 4467
- Kao, T. W.**  
Role of viscosity stratification in the stability of two-layer flow down an incline 4331
- Kapelewski, J.**  
See Kaliski, S. 232
- Kaplan, A. R.**  
The velocity of wave propagation in a ring main 7784
- Kaplan, C.**  
On the asymptotic form of the stream function for the flow of an Oseen-like fluid past a paraboloid of revolution 6254
- Kaplan, P.**  
Development of mathematical models for describing ship structural response in waves 4286
- Kaplan, S.**  
Conical and involutory transformations of variational problems involving higher derivatives 2189
- Kaplevatskii, I. D.**  
Calculation of a circular flexible plate 8488
- Kappus, R.**  
Separation of natural modes of neighboring frequency by calculation 1659
- Kapshivy, A. A.**  
Application of  $p$ -analytical functions to the solution of a contact axisymmetric problem for a laminated cylinder 9312
- Kaptsan, A. D.**  
Some characteristics of waves propagated in "gradient media" 4179
- Kapur, J. N.**  
Invariant forms and dissipation functions for various non-Newtonian fluids 352  
Flow of Reiner-Philippoff fluids in the inlet length of a circular pipe 1792
- Kapustina, O. A.**  
Effect of radiation pressure on the rate of ascent of gas bubbles in a liquid 9966
- Kar, S.**  
See Reddy, Y. R. 3604  
Reddy, Y. R. 5449
- Karabelas, A. J.**  
Determination of the direction of surface velocity gradients in three-dimensional boundary layers 1874
- Karal, F. C., Jr.**  
See Karp, S. N. 8119
- Karamadian, S.**  
Strictly quasi-convex (concave) functions and duality of mathematical programming 767
- Karamcheti, K.**  
See Sentman, L. H. 8792
- Karapetrova, S.**  
See Cheshankov, B. 4004
- Karapetyan, B. K.**  
Oscillations of building structures erected in Armenia 6845
- Karasawa, M.**  
See Watanabe, M. 4774
- Karasev, G. V.**  
See Asanbaev, Yu. A. 798
- Karashima, K.**  
An aerodynamic study of ablation near the region of stagnation point of axisymmetric bodies at hypersonic speeds 573  
Aerodynamic study of stagnation ablation 3710
- Karashima, S.**  
The effect of temperature on the yield stress of spherulite and pearlite 7401
- Karasik, M. Y.**  
See Mitrofanov, Y. M. 6212
- Karsova, I.**  
Steady, one-dimensional thermal flow in  $n$ -body systems with internal heat generation: Part I 6383
- Karasudhi, P.**  
Vibratory motion of a body on an elastic half-plane 5982
- Karbe, Yu. V.**  
Hot-wire anemometer for the measurement of temperature, velocity and direction of a gas flow 8873
- Kardashov, A. A.**  
Application of  $z$ -transformations to exponential approximation of correlation and transfer functions 7549
- Kardos, G.**  
Design criteria for generalized high strain 4052
- Kardos, P.**  
See Hatvany, J. 50
- Karelin, V. S.**  
Synthesis of a lever-gear mechanism with an extended driven link 6199
- Karge, H.**  
See Saxen, A. 9622
- Kargu, L. I.**  
Errors of a gyroscopic integrator of linear accelerations 8390

- Karhan, B. L.  
See Faeth, G. M. 3722
- Karlashov, A. V.  
Effects of the loading frequency on the fatigue limit of aluminum alloy V95 1012  
Effect of some factors of programmed loading on the endurance of an aluminum alloy in a corrosive medium 2491
- Karlin, S.  
On the spectral representation of branching processes with mean one 781
- Karlovtz, B.  
Equations of the electromagnetic field containing plasma 9009
- Karmeli, D.  
Design of optimal water distribution networks 4845
- Karmode, R. I.  
See Huber, C. I. 5814
- Karnaikhov, V. G.  
See Kovalenko, A. D. 5019
- Karnes, C. H.  
See Butcher, B. M. 9319
- Karnopp, D.  
Analysis and simulation of multiport systems: The bond graph approach to physical system dynamics 2192  
Continuum model study of preview effects in actively suspended long trains 4007  
On the optimization of saturating servomechanisms subjected to random disturbances 4875  
Computer representation of continuous vibratory systems using normal modes and bond graph techniques 2213
- Karp, S. N.  
Phenomenological theory of multi-mode surface waves for plane structure 8119
- Karpe, S. A.  
Influence of rotor metal on bearing failures generally classified as the machining type 2166  
An experimental investigation simulating machining-type failures in turbines 3882
- Karpelevich, F. I.  
Elements of linear algebra and linear algebra and linear programming 4
- Karpenko, G. V.  
See Zamikhovskii, V. S. 3346
- Karpov, A. V.  
Calculation of the oscillations of disks of variable thickness by the Ritz method 6830
- Karpov, N. I.  
Dynamic stability of cylindrical shell longitudinally reinforced 1689  
Stability of cylindrical shell reinforced by means of stiffened ribs 5055
- Karpov, V. I.  
Method and apparatus for highly sensitive leak detection 1174
- Karpova, N. V.  
The determination of railway track displacements at points of application of instantaneous shock pulses: Hammer blow transportation 7694
- Karpovskii, M. G.  
Realization of a system of logical functions by means of an expansion in orthogonal series 9265
- Karpunin, V. V.  
Calculation for longevity of machine parts in the case of variable loads 4235
- Karst, H.  
Stability of road embankments 4204
- Karymov, A. A.  
Determination of the period of solar illumination of an artificial Earth satellite 3811  
The effect of external perturbing moments on the dynamics of a uniaxial single-flywheel attitude control system of a spacecraft 7358
- Kasahara, A.  
See Houghton, D. D. 2588
- Kasai, K.  
On the stability of a poppet valve with an elastic support: Part 1, Considering the effect of the inlet piping system 9437
- Kasai, T.  
On the improvement in the suction performance of high-head axial-flow pumps 8025
- Kasatkin, B. S.  
See Malashenko, S. V. 4719
- Kascak, A. F.  
Effect of turbulent mixing on average fuel temperatures in a gas-core nuclear rocket engine 1264  
See also Ragsdale, R. G. 8923
- Kashcheev, V. M.  
Turbulence scale in channels formed by closely packed rods 1130
- Kashiwabara, Y.  
A two-parameters theory of axisymmetric compressible flow in axial turbomachines 8026
- Kashiwagi, Y.  
See Shaughnessy, J. D. 3949
- Kashiwamura, M.  
Measurement of the longitudinal diffusion of water flow in a pipe by the salt velocity method 6249
- Kashkarov, V. P.  
Plane jet of fluid with variable viscosity 396
- Kaskey, A. G.  
See Warner, R. W. 4307
- Kasper, H. J.  
Analytical and experimental investigation of outflow residuals in interconnected spherical tanks 1063
- Kassem, A. E.  
See Greif, R. 6413
- Kassir, M. K.  
On the problem of an external elliptical crack in an infinite solid 3116  
Thermal stresses in a solid weakened by an external circular crack 9072  
External elliptical crack in elastic solid 9305
- Kassoy, D. R.  
Injection effects in high Prandtl number boundary-layer flows 5386
- Kastner, S.  
Analysis of natural model sea 5711
- Kasture, D. Y.  
Secondary flows in a rotating liquid 7959
- Kasuga, Y.  
Friction and lubrication in the deformation processing of metals: Part 2, Surface texture and coefficient of friction 5714  
Friction and lubrication in the deformation processing of metals: Part 1, Quantitative assessment of the surface texture of materials being deformed under rigid tool 6089
- Kasyan, V. G.  
See Balyberdin, V. V. 1315
- Katagiri, K.  
See Awatani, J. 8636
- Kataoka, K.  
See Doi, O. 1747  
Doi, O. 5211
- Katayama, T.  
The statistical theory of noncontact speed measurement 3955  
Fundamental equations for thermoelastic deformation of skew plates 5634  
See also Sawaragi, Y. 5802
- Kato, H.  
Consideration on the fundamental equation of the vibration of collision 974  
Studies on the heat transfer of fluids at a supercritical pressure: Part 1, A proposition of reference values of thermal properties and experiments with supercritical carbon-dioxide 7244
- Kato, K.  
Improvement of moire and grid methods of plastic strain analysis and their application to extrusion 9540  
See also Kasuga, Y. 5714  
Kasuga, Y. 6090  
Wakao, N. 6406
- Kato, Y.  
An effect of micro-instability on the temperature anisotropy in the solar wind 2053  
See also Hirabayashi, H. 2165  
Jeffrey, A. 8319
- Kats, B. B.  
See Namitokov, K. K. 8283
- Kats, B. S.  
Solution of a one-dimensional problem for a helicoidal shell 3178
- Katsev, P. G.  
Ductility tests for high-speed tool steel 9555
- Katsuya, A.  
See Sueishi, T. 7931
- Katto, Y.  
Dynamics of compressible saturated two-phase flow: Critical flow 7989
- Katz, D. L.  
See Briggs, J. E. 9107  
Mather, A. E. 9803
- Katz, P.  
The free flight of a rotating disk 1882

- Katz, S.  
Autopilot synthesis for desired transient response to commands 3962  
Time domain synthesis of an autopilot for the flight stabilization 6664
- Katz, Y.  
Dimensionless fracture-toughness parameters 3332
- Kaufman, A.  
Steady-state stress relaxation analysis of turbine blade cooling designs 7639
- Kaufman, H. N.  
An evaluation of various journal materials with regard to machining-type wear 4780
- Kaufman, S.  
See Renzo, P. C. 1772  
Swanson, C. J. 5216
- Kaufman, W. C.  
Thermography in the study of the peripheral circulation 1450
- Kaufmann, A.  
Graphs, dynamic programming, and finite games 1469
- Kaul, C. N.  
Weak discontinuities in shallow-liquid magnetohydrodynamics 8992
- Kausche, G.  
Study of a slender elliptical cone in axial flow at hypersonic velocities 8778
- Kavenoky, A.  
See Benoist, P. 1979
- Kawabe, T.  
See Murakami, Y. 287
- Kawada, H.  
See Mori, Y. 9883
- Kawafune, K.  
Studies of electrochemical machining: Part 1, Theoretical analysis for work shape processed by ECM; Part 2, Investigation of the shapes by electric tank simulation 6921
- Kawagoe, H.  
Measurement of residual stresses in a cylinder: Part 1, Theory for a short specimen cut off from a long cylinder; Part 2, Evaluation and experiment on a short specimen cut off from a long cylinder 1024
- Kawaguchi, M.  
On nonlinearity of prestressed suspension roofs 3410
- Kawahara, T.  
A successive approximation for turbulence in the Burgers model fluid 8006
- Kawai, T.  
Numerical examination of the fulfillment of natural boundary conditions by the approximate solutions for bending and vibration of thin elastic plates based on the Rayleigh-Ritz procedure in case of cantilevered wing plates 191  
See also Kamo, N. 4543
- Kawakami, F.  
Earthquake response of an earth dam 2452
- Kawakami, I.  
See Hamada, S. 5558
- Kawakami, M.  
On the strength and structural problems in ships with large hatch openings 6185
- Kawamo, K.  
See Murakami, A. 7718
- Kawamoto, I.  
See Kawasaki, T. 6369
- Kawamoto, M.  
Effects of static strength and deformability of steels on tensile impact fatigue strengths 6948
- Kawamoto, T.  
See Usami, T. 8652
- Kawamura, H.  
See Yamada, M. 2533
- Kawamura, K.  
On the relation between  $z$  transforms and a transform technique for time-varying, linear systems 6646
- Kawamura, R.  
The effect of atmospheric nonuniformity on sonic boom intensities 1842
- Kawano, K.  
See Nisitani, H. 4236
- Kawasaki, T.  
An experimental investigation about spike nose at angle of attack 6369  
See also Yokobori, T. 6096
- Kawata, K.  
See Kobayashi, A. 279
- Kawatate, K.  
Linear viscoelastic longitudinal waves in a plate and a cylinder 6043
- Kay, E. A.  
Expanded polystyrene models of reinforced concrete structures 4240
- Kaya, I.  
See Sackman, J. L. 4175
- Kaya, Y.  
Estimation of the process transfer function 3971
- Kaye, H.  
Numerical solution of near-equilibrium boundary layers 7142  
See also Fay, J. A. 1872
- Kays, W. M.  
The effectiveness of a counter-flow heat exchanger with cross-flow headers 1244  
See also Moffat, R. J. 7286
- Kazak, S. A.  
Question of the formulation of characteristic polynomials 7483
- Kazakevich, V. V.  
Approximate integration of the Rayleigh equation for any nonlinearity 1455
- Kazakov, M. N.  
See Gonor, A. L. 7979
- Kazakova, R. K.  
Analysis of the properties of energetically optimal orbits for flights to Jupiter 9912
- Kazama, E.  
See Miyairi, T. 7893
- Kazanskii, V. M.  
Determination of the thermodynamic functions of the moisture absorbed by a disperse body from its specific heat of evaporation 2759
- Kazarnovskaya, I. I.  
See Fomin, V. V. 6121
- Kazda, L. F.  
See Volz, R. A. 2241
- Keafer, L. S., Jr.  
A flight measurement of optical radiation from shock-heated air by using a Trailblazer II vehicle 4469
- Keast, D. N.  
Measurements in mechanical dynamics 5134
- Keenan, R. K.  
See Hiller, J. 5806
- Keer, L. M.  
Mixed boundary-value problems for an elastic half-space 3125  
Torsion of a finite elastic cylindrical rod partially bonded to an elastic half-space 7611  
See also Karasudhi, P. 5982
- Kehat, E.  
See Letan, R. 8093
- Kehl, T. H.  
See Scher, A. M. 2986
- Keis, I.  
Particular integrals of the equations of motion of a heavy gyrostat with one fixed point 9279
- Kekre, H. B.  
Identification of impulse response of linear systems and synthesis of system model 6665
- Kelen, A.  
Simplified determinations of heat transfer data for solids: Applications to qualify testing of electrical insulations 567
- Kellard, P. O.  
See Lis, J. 8895
- Keller, C. L.  
See Guderley, K. G. 6609
- Keller, H. B.  
Numerical methods for two-point boundary-value problems 6603
- Keller, J. B.  
Extremum principles for slow viscous flows with applications to suspensions 377  
See also Handelman, G. H. 768  
O'Malley, R. E., Jr. 7485  
Shen, M. C. 8844
- Kelley, H. L.  
Flying quality factors currently limiting helicopter nap-of-the-Earth maneuverability as identified by flight investigation 4616
- Kelley, L. R.  
See Ringwall, C. G. 2761
- Kellogg, R. B.  
A nonlinear alternating direction method 8332  
See also Hageman, L. A. 3928



- Kelly, A.  
Composite materials 3128
- Kelly, F. L.  
See Eckert, H. U. 9020
- Kelly, H. N.  
See Ferris, A. T. 1139
- Kelly, J. M.  
See Wierzbicki, T. 5122
- Kelly, J. R.  
Detonation wave in electromagnetic field 4596
- Kelly, R. E.  
On the effects of a periodic, spanwise variation of suction upon asymptotic suction flow 4411  
Wave diffraction in a two-fluid system 7168
- Kelm, S.  
Diagnostics of a nonthermal plasma for MID generation 6478
- Kelsey, C. A.  
Ultrasonic Doppler shift as an aid to diagnostic ultrasonic scanning 1442
- Kemp, K. O.  
See Prince, M. R. 5225
- Kemp, N. H.  
Surface recession rate of an ablating polymer 2815
- Kemper, J. D.  
Large deflections of tapered cantilever beams 4993
- Kemper, J. T.  
See Olstad, W. B. 1116  
Grose, W. L. 1179
- Kendall, D. P.  
See Eisenstadt, R. 8633
- Kendall, P. A.  
Thermal initiation apparatus for high energy materials 2006
- Kendall, R. M.  
Nonsimilar solution of the multi-component laminar boundary layer by an integral-matrix method 4415
- Kennedy, J. B.  
Comment on clamped skew plate under uniform normal loading 5002  
See also Ng, S. 1650
- Kennedy, L. A.  
The effects of mass addition on the laminar boundary-layer flow of an absorbing-emitting gas 1253  
Structure of a detonation wave under the influence of a transverse magnetic field 9913
- Kennedy, R. J.  
See Boadway, J. D. 502
- Kennedy, W. A.  
Low-solids fluids reduce costs 264
- Kennel, C. F.  
Thermal anisotropies and electromagnetic instabilities in the solar wind 8139  
See also Formisano, V. 9872
- Kennel, M.  
See Barquins, M. 3868
- Kenner, V. H.  
Elastic waves in truncated cones 4165
- One-dimensional wave propagation through a short discontinuity 6030  
See also Goldsmith, W. 3380
- Kenny, B.  
Stress distributions in thick circular plates subjected to hydrostatic pressure 8492
- Kenny, P.  
Fracture toughness: An examination of the concept in predicting the failure of materials 3321
- Kent, A.  
Plasma fluctuations and convective modes 8142
- Kent, R. C.  
Model for rheology of halloysite suspensions 3435
- Kenyon, K. E.  
Wave-wave interactions of surface and internal waves 5692
- Kenyon, N.  
Design of base metals for weldability: Maraging steels 9613
- Kerber, R. L.  
Moire interferometry with embedded grids: Effect of optical refraction 9537
- Kerisel, J.  
Settlements under foundations: Part 1, Calculation using the triaxial apparatus 4195
- Kern, E. A.  
An efficient algorithm for minimum impulse orbital transfer 1332
- Kerr, A. D.  
The instability of a rectangular elastic solid 5038  
An extension of the Kantorovich method 5759  
Buckling of continuously supported beams 6779
- Kesava Rao, B.  
Finite strain in transverse isotropic bodies 4922
- Keshav, M. S.  
Mechanical analog of the human body 2981
- Keshava, S. P.  
See Achenbach, J. D. 6035
- Keshavan, R.  
See Brzustowski, T. A. 8955
- Kessel, P. G.  
Application of the positive thermoelastic coefficients of nickel-iron alloys to wide-temperature-range Belleville springs 1374  
Vibrations of circular cylindrical shells due to gyroscopically induced inertia loads 7769  
See also Schlack, A. L., Jr. 6000
- Kessel, S.  
Stress functions and loading singularities for the infinitely extended, linear elastic-isotropic Cosserat continuum 6713
- Kesselman, P. M.  
An equation for calculating the viscosity of compressed gases 3637
- The equation of state of carbon dioxide in the temperature range 273°-4000°K, for pressures up to  $1000 \times 10^5 \text{ N/m}^2$  4489
- Kesseru, Zs.  
A new approach and new methods for the investigation of the critical seepage velocity 2140
- Kessler, A.  
See Karasova, I. 6383
- Kessler, R.  
Effects of electrode and boundary-layer temperatures on MHD-generator performance 2872
- Kestenbaum, A.  
See Dorato, P. 2266
- Kestin, J.  
The transfer of heat across a two-dimensional oscillating boundary layer 2669  
A course in thermodynamics: Vol. 2 9797
- Ketcham, J.  
See Velkoff, H. R. 447
- Keusenhoff, J.  
Influence of wall friction on the flow in a multistage axial compressor 3602
- Key, P. L.  
See Katz, Y. 3332
- Key, S. W.  
Grueneisen tensor for anisotropic materials 2941  
See also Duffey, T. A. 8460
- Keyes, J. J., Jr.  
See Armistead, R. A., Jr. 2655
- Keyes, J. W.  
Turbulent heat transfer associated with control surfaces at Mach 6 3686
- Khachatryan, A. A.  
Longitudinal oscillations of prismatic rods made of a material with different tensile and compressive elasticity moduli 5078  
See also Ambartsymyan, S. A. 4110
- Khaimovich, V. S.  
See Vishnyakov, Ya. D. 8448
- Khairtdinov, E. F.  
Some exact solutions to the equations of a one-dimensional (with plane waves) unsteady soil motion of the ground 983
- Khairullin, S. Kh.  
Stability of a spherical shell in the case of large flexures 8521
- Khakimov, Kh. R.  
Calculation of deep supports in terms of deformations 4199
- Khan, M. A.  
A re-evaluation of the theory for the hydrostatic figure of the Earth 4749
- Khan, M. A. A.  
See Dube, S. K. 9863
- Khan, V. H.  
See Subrahmanyam, S. V. 9934
- Khanin, M. V.  
Investigation of the gas flow around a rough surface 4366

- Khanna, S. M.**  
Laser interferometer for the measurement of submicroscopic displacement amplitudes and their phases in small biological structures 7474
- Khanzhov, B. D.**  
Variation solution of the axisymmetric problem of thermoelasticity for a transversally-isotropic cylinder of finite length 9082
- Kharchenko, M. G.**  
Technique of obtaining, by means of thermocouples, a single proportional to the absolute temperature 8897
- Kharchenko, T. G.**  
*See* Stepanov, A. E. 9350  
Stepanov, A. E. 9365
- Kharitonov, A. I.**  
Endurance analysis of beams in bending with torsion: Stresses in reinforcement 7876
- Kharitonov, L. G.**  
Determination of the mechanical characteristics of metals with respect to hardness tests 4248
- Kharitonova, A. N.**  
*See* Frenkina, I. P. 6031
- Kharitonova, T. V.**  
*See* Karymov, A. A. 7358
- Khayutin, Yu. G.**  
*See* Sovolov, I. G. 2578
- Khentov, A. A.**  
The passive stabilization of artificial Earth satellites by means of the Earth's magnetic field 3803  
The influence of the magnetic and gravitational fields of the Earth on the oscillations of a satellite about its center of mass 4633
- Khidoyatov, K.**  
*See* Babichev, A. I. 228
- Khilko, V. V.**  
Concerning design of optimal metering system containing digital computing devices 1549
- Khismatullin, A. Ya.**  
*See* Kosterin, V. A. 2823
- Khizhnyak, N. A.**  
Current-sheet dynamics and acceleration of plasma in electrodynamic rail accelerators 2051
- Khizhnyak, V. N.**  
Single-frequency oscillations in multidimensional quasilinear systems with a lag in the case of the action of random forces 8559
- Khlebutin, G. N.**  
Thermal convection in a vertical annular tube 3681
- Khlos, A. A.**  
Gear grinding errors due to base circle eccentricity 9597
- Khmelevitsov, S. S.**  
*See* Kuzikovskiy, A. V. 2975
- Khodos, I. V.**  
*See* Khilko, V. V. 1549
- Khodzhaev, K. Sh.**  
Resonant and nonresonant case in the problem of excitation of mechanical oscillations 4121  
*See also* Nagaev, R. F. 6698
- Khol, R.**  
Understanding photoelasticity 6963
- Kholshchevnikov, K. V.**  
Application of the method of averaging to the problem of motion in the gravitational field of a non-spherical planet: Part I 644
- Khol'yavko, V. I.**  
Aerodynamic characteristics of non-planar wings from the slender body theory 9750
- Khomyakov, V. A.**  
Determining the correlation function of a random process 9243
- Khoroshun, L. P.**  
Stability of laminated materials 7626
- Khot, N. S.**  
On the influence of initial geometric imperfections on the buckling and postbuckling behavior of fiber-reinforced cylindrical shells under uniform axial compression 3214  
*See also* Venkayya, V. B. 6985
- Khozhaiov, A. L.**  
Nonstationary flow of a conducting fluid in the channel of a MHD generator subject to a sudden short circuit 601
- Khrystianovich, S. A.**  
*See* Barenblatt, G. I. 6933
- Khrystich, V. A.**  
*See* Bannikov, A. I. 4458
- Khuberyan, B. K.**  
On asymptotic normality of Bayes estimates of the unknown parameters in teaching pattern recognition systems 2277
- Khusnytdinova, N. V.**  
The limiting moisture profile during infiltration into a homogenous soil 4745
- Khuts'kii, G. I.**  
Optimal control of superheated steam temperature in a boiler unit 8964
- Khvalov, Yu. G.**  
Synthesis of realizable servosystems by the minimum mean-square error criterion, with dry friction and coordinate constraints taken into account 4902
- Khvaja, I.**  
Large deflections of cantilevers by the analog computer 3159
- Khmalyan, D. M.**  
Investigation of the ignition and burnout of coal particles 6432
- Kida, T.**  
A linearized theory of a thin jet-flapped aerofoil in proximity of the ground 9744  
*See also* Miyai, Y. 7157
- Kidd, G. J., Jr.**  
Potential vortex flow adjacent to a stationary surface 3491
- Kido, K.**  
*See* Kagawa, Y. 2420
- Kiefner, J. F.**  
*See* Munse, W. H. 1002
- Kiel, R. E.**  
Electrostatic probe theory for free molecular cylinders 1309
- Kielbasa, J.**  
Dual hot-wire anemometer with constant phase shift 6309  
Measurement of low air flow velocities by a hot-wire constant temperature anemometer 8872
- Kielbasinski, A.**  
*See* Desperat, T. 2994
- Kienappel, K.**  
*See* Koppenwallner, G. 6272
- Kierkus, W. T.**  
An analysis of laminar free convection flow and heat transfer about an inclined isothermal plate 543
- Kierski, J.**  
*See* Zielinski, L. 5513
- Kiguradze, I. T.**  
The problem of oscillation of solutions of nonlinear differential equations 3914
- Kihlman, T.**  
*See* Nordlund, B. 2106
- Kijewski, L.**  
Interpolation method for the many-body problem 4482
- Kikuchi, K.**  
Magnetohydrodynamic slip flow in the entrance region of a parallel-plate channel: Part I, MHD flow without Hall effects 4585
- Kilchevskii, N. A.**  
On the determination of kinetic stress functions in elastodynamics problems 2284  
Classical problem of the theory of static stability of cylindrical shells 7745
- Kilchinskaya, G. A.**  
Effect of a nonsteady high-temperature field on the dynamic stability of a heat-conducting shell 7392
- Killgore, E. M.**  
*See* Trammell, G. J. 1987
- Kilmer, F. G.**  
*See* Gilson, L. A. 3056
- Kim, D. H.**  
*See* Goldberg, J. E. 6184
- Kim, H. C.**  
Potential and wave height expressions for multipoles moving under the free surface 7172
- Kim, J. H.**  
*See* Miles, J. B. 4409
- Kimura, I.**  
*See* Kanzawa, A. 2878
- Kimura, T.**  
Hypersonic flow around a spherically blunted cone 2626
- Kind, R. J.**  
An experimental investigation of a low-speed circulation-controlled airfoil 2689
- King, A. W.**  
*See* Ryan, R. S. 3573

- King, C. D.  
See Powell, B. A. 3830
- King, C.-Y.  
See Brune, J. N. 2142
- King, E. Y.  
A mathematical model of heat transfer in continuous casting 3702
- King, H. W.  
See Bruch, J. C., Jr. 3532
- King, I. P.  
See Zienkiewicz, O. C. 3296  
Cheung, Y. K. 3406  
Zienkiewicz, O. C. 8419
- King, K. M.  
See Dyer, A. J. 2156
- King, R. E.  
Parametric estimation of multi-variable continuous systems of known structure 4878  
See also Blodgett, R. E. 6675
- King, W. H.  
Additional studies on the diffusion welding of titanium 7919
- King, W. S.  
Hypersonic strong interaction on flat plate with uniform blowing 7134  
See also Mirels, H. 7197
- King-Hele, D. G.  
A reevaluation of the rotational speed of the upper atmosphere 1402  
A discussion on orbital analysis 7353  
The effect of atmospheric rotation on a satellite orbit, when scale height varies with height 9032
- Kingsbury, E. P.  
Ball motion in angular contact bearings 2978
- Kinnen, E.  
Lyapunov functions derived from auxiliary exact differential equations 2996
- Kinno, H.  
Water-hammer control in centrifugal pump systems 4432
- Kinsey, P. J.  
See Cassell, A. C. 2365
- Kintner, P. M.  
Electronic digital techniques 5788
- Kipichenko, N. F.  
Sufficient criteria for dynamic stability of nonlinear system with differential parametric excitation 1663
- Kiraly, B.  
Propagation of elastic bending vibrations in bars 6029
- Kirby, D. A.  
An experimental investigation of the effect of planform shape on the subsonic longitudinal stability characteristics of slender wings 8818
- Kirby, M. J. L.  
See Charnes, A. 2197
- Kirdyashkin, A. G.  
See Kutateladze, S. S. 3706  
Leontev, A. I. 7241  
Leontev, A. I. 8070
- Kirenkov, I. I.  
Set of standards for temperature measurements 4551
- Kirgetov, V. I.  
The motion of controlled mechanical systems with prescribed constraints (servoconstraints) 6680
- Kirichenko, A. M.  
See Podilchuk, Yu. N. 1576
- Kirichok, I. F.  
See Motovilovets, I. A. 5642
- Kirillin, V. A.  
Some data obtained with an experimental MHD-power plant 1306  
A pulsed magnetohydrodynamic generator with a superconducting magnetic system 1308
- Kirk, D. E.  
Optimization of systems with pulse-width-modulated control 3990
- Kirklin, R. H.  
See Shopland, R. C. 9122
- Kirkpatrick, G. S.  
Investigation of the performance of an ischial load-bearing leg brace 9166
- Kirkpatrick, J. W.  
See Palm, J. W. 4461
- Kirkpatrick, W. M.  
On the interpretation of the tri-axial test 5153
- Kiroyu, V.  
See Reuta, S. 8687
- Kirsch, A. A.  
The fluid flow in a system of parallel cylinders perpendicular to the flow direction at small Reynolds numbers 6251
- Kirstein, A. F.  
Deflection of thin circular elastic plates under symmetrically distributed loading 4997
- Kiselev, L. E.  
See Troyanovskii, B. M. 9849
- Kiselev, M. I.  
Automodel motion in magnetogas-dynamics involving variable conductivity 596  
See also Dzhumanaliev, N. D. 1563
- Kiselev, O. M.  
Rigorous solutions of flow problems for the presence of surface tension 8746
- Kiselev, V. G.  
See Kazakova, R. K. 9912
- Kishan Rao, K.  
See Das, S. C. 9078
- Kishore, R.  
Acoustic attenuation in solids 1361
- Kisiel, I.  
Loading of soil represented by M/V model: Rheological limits 7803
- Kislev, Y.  
A programming model for optimal patterns of investment, production and consumption over time 8329
- Kislitsyn, S. G.  
See Arkhinov, V. N. 8711
- Kiss, E.  
See Hoppmann, W. H., II 7083
- Kiss, I. S.  
See Freudenstein, F. 8717
- Kissel, J. W.  
Controlled environment friction and wear apparatus 9997
- Kit, G. S.  
Determination of the stationary temperature field and stresses in the vicinity of a slit possessing heat resistance 1210
- Kita, T.  
See Saito, K. 4686
- Kitaev, B. I.  
See Arseeva, N. V. 5310
- Kitagawa, H.  
See Hamada, M. 4968  
Hamada, M. 5865
- Kitagawa, S.  
See Yamada, T. 2496
- Kitano, S.  
See Kamo, N. 4543
- Kitching, R.  
Static friction between a cup leather seal and a cylinder wall 3465  
See also Johnson, J. 9171
- Kiusalaas, J.  
On the linear bending theory of a pressurized torus 1639
- Kiwalke, J.  
Designing for inertia welding 2570
- Kiwan, A. R.  
Solution of the two-sided Cauchy problem for an  $m$ -dimensional generalized acoustic system 773
- Kiyokawa, Y.  
See Honda, M. 7126
- Kizer, R. H., Jr.  
See Robinson, G. C. 6913
- Kizima, G. A.  
See Zhilin, P. A. 1646
- Kjaer-Pedersen, N.  
An integrated analytical model for the evaluation of two-phase flow stability 5298
- Kjar, A. R.  
Approximate models in structural analysis 5207
- Kladnitskii, V. S.  
Compensation of beam dispersion in magnetic deflecting systems 3782
- Klaeger, S.  
See Wiele, H. 2118

- Klager, K.**  
Recent advances in solid propellant binder chemistry 7306
- Klahn, R.**  
FFT-shortcut to Fourier analysis 5778
- Klamkin, M. S.**  
On some inverse problems in dynamics 2890  
On some inverse problems in potential theory 3097
- Klaus, R. L.**  
An extension of the spline fit technique and applications to thermodynamic data 32
- Kleimenov, A. F.**  
See Gerashchenko, E. I. 4865
- Klein, E. J.**  
Liquid crystals in aerodynamic testing 2765
- Klein, G.**  
Test stand for magnetoaerodynamic power conversion in subatmospheric supersonic flow 4613
- Klein, M.**  
Sonar: A modern technique for ocean exploitation 1400
- Klein, M. M.**  
Similarity solution for cylindrical gas cloud in rarefied atmosphere 3534
- Klein, S.**  
See Jones, R. M. 4087
- Klein, W. M.**  
External field dependence of transport properties: Part I, Thermal conduction in a fluid of rough spheres 5459
- Kleinenberg, S. E.**  
Present-day problems of biological aero- and hydrodynamics 9159
- Kleiner, E. L.**  
See Bereznoi, I. A. 3614
- Kleinman, D. L.**  
On the design of linear systems with piecewise constant feedback gains 8369
- Kleinstein, G.**  
Slot cooling at high speed flow 3720
- Kleinwachter, H.**  
High-frequency flight attitude indicator 4474
- Klepaczko, J.**  
Generalized conditions for stability in tension tests 3143  
Axial compression of a cylindrical shell under internal pressure 5950  
Strain rate history effects for polycrystalline aluminium and theory of intersections 7656
- Kliigel, J. R.**  
Convergent-divergent nozzle flows 5349
- Klietov, N. V.**  
Velocity and temperature profiles in semibounded laminar jets of incompressible fluid 395
- Klima, S. J.**  
Ultrasonic detection and measurement of fatigue cracks in notched specimens 277
- Klimanov, V. I.**  
Stability of continuous rectangular plates compressed in two directions 7735
- Klimov, V. G.**  
Effect of interactions on the resonance characteristics of a dynamic system 5839
- Klimovskaya, L. D.**  
Some data on the mechanism of the disturbed perceptive function of the cerebellum during acceleration 1449
- Kline, K. A.**  
On continuum theories of suspensions of deformable particles 7929  
See also DeSilva, C. N. 8421  
Allen, S. J. 9164
- Klingelhofer, K.**  
Nonlinear harmonic boundary value problems: Part 2, Modified Hammerstein integral equations 8321
- Klingeman, J.**  
Computer classifications of electrocardiograms 9170
- Klingenberg, H.**  
Diagnostic method for measuring ionization rates in shock heated gases 1855
- Klinger, A.**  
Approximate pseudoinverse solutions to ill-conditioned linear systems 3016
- Kloholm, E.**  
Intrinsic stress in evaporated metal films 8661
- Kloppel, K.**  
Consideration of cross-section deformation in the statics of bars 4060  
Investigation and analysis of the load carrying capacity of latticed bars subject to eccentric loads 8503
- Klose, G. J.**  
Unsteady force measurements on fully wetted hydrofoils in heaving motion 5710
- Klosner, J. M.**  
See Berglund, J. W. 959
- Klozenberg, J. P.**  
See Ferrari, R. L. 5567
- Kluitenberg, G. A.**  
A thermodynamic derivation of the stress-strain relations for Burgers media and related substances 1611
- Klusak, M.**  
Pressure distribution on a wing section with jet flap, considering the mixing of the issued jets with the ambient air 8016
- Klyachko, L. A.**  
Ignition of an aggregate of particles during heterogeneous reaction 4558
- Klyuchininkas, A. Yu.**  
An investigation of the vibration and sound of the calculating machine "Vilnius" 4673
- Kmonicek, V.**  
Calculation methods of thermodynamic properties of gases at high temperatures 522
- Knappwost, A.**  
See Schulz, H. H. 725
- Knauss, W. G.**  
Uniaxial wave propagation in a viscoelastic material using measured material properties 7794
- Knight, K.**  
See Wagoner, F. v. M. 3279
- Knight, W. A.**  
The universal machinability index and the prediction of machine tool stability 3314
- Knightly, G. H.**  
An existence theorem for the von Karman equations 153
- Knobbout, J. A.**  
Insulation in refrigeration technology 2772
- Knoche, K. F.**  
Improvement of the reversibility of combustion processes 1944
- Knoll, R. H.**  
Experimental studies on shadow shields for thermal protection of cryogenic tanks in space 1225  
See also Boyle, R. J. 1224
- Knollenberg, R. G.**  
The local cooling ice nucleation model 6573
- Knollman, G. C.**  
Liquid viscoelasticity under rare-gas infusion 7027
- Knopoff, L.**  
See Mal, A. K. 233  
Burridge, R. 4751  
Shapiro, J. N. 7987
- Knops, R. J.**  
Stability of the traction boundary value problem in linear elastodynamics 5035  
On the stability of solutions of the Navier-Stokes equations backward in time 5296  
Stability in linear elasticity 7778  
See also Hayes, M. 4018  
Green, A. E. 5040
- Knostman, H. D.**  
Collocation and eigenfunctions in plane elastostatics 5854
- Knowles, J. K.**  
On the exponential decay of stresses in circular elastic cylinders subject to axisymmetric self-equilibrated end loads 7597
- Knox, C. K.**  
Simulation of the transfer function of a crustacean muscle bundle 2984
- Knudsen, H. K.**  
See Schweppe, F. C. 724
- Knudsen, V. O.**  
Reverberation-room acoustics-effects of various boundary conditions 1359
- Knuth, E. L.**  
Densities and speeds in an arc-heated supersonic argon beam 3538
- Knyazev, L. V.**  
See Kozdoba, L. A. 5484



- Knystautas, R.**  
See Lee, J. H. 8950
- Ko, D. R. S.**  
See Kubota, T. 406
- Ko, H.-Y.**  
Deformation of sand at failure 7804
- Kobasa, D.**  
Experimental determination of the length of the arc of contact in cold rolling 2463
- Kobayashi, A.**  
Preliminary experimental study on low cycle fatigue of filament-wound composites 279
- Kobayashi, K.**  
The calibration of the intracardiac phonocatheter 1446
- Kobayashi, R.**  
Instability of a fluid layer which is heated from below, due to the combined action of surface tension and buoyancy 1974  
See also Kao, J. T. F. 4467
- Kobayashi, S.**  
See Altan, T. 259  
Negroni, F. 4974  
Sortais, H. C. 5171  
Mylonas, C. 5187  
Niwa, Y. 9212  
Lambert, E. R. 9505
- Kobayashi, T.**  
See Yatsui, K. 680
- Kobazev, A. V.**  
See Deich, M. E. 4438
- Kobelev, M. I.**  
See Belyayev, V. Y. 2348
- Kober, G.**  
Numerical method for the computation of the large deflections of beams of arbitrary shape 3155
- Kobori, T.**  
Earthquake response of a structure with a rectangular foundation 7424  
Nonstationary random excitations of a linear discrete system 8558  
Methods of statistically estimating dynamic characteristics of a multi-degree-of-freedom linear system 9197
- Kobrinskaya, L. M.**  
See Zairov, D. Z. 7585
- Kobrinskiy, A. Ye.**  
Mechanisms with elastic couplings 8725
- Kobrynski, M.**  
On the calculation of the maximum sound pressure spectrum from stationary and mobile jets 662  
On the calculation of the maximum sound pressure spectrum from fixed and mobile jets 4661
- Kobus, H. E.**  
Examination of Eggers' relationship between transverse wave profiles and wave resistance 1899
- Kocak, C.**  
Application of Mikusinski's theory of operational calculus in solving a partial differential equation 3008  
Small oscillations of a heavy chain with fixed two ends, composed of two homogeneous parts, and loaded by a fixed mass  $m$  7755
- Koch, E.**  
Calculation of two-dimensional incompressible potential flow through cascades of straight blades 8864
- Koch, G.**  
See Fantauzzi, G. 9240
- Koch, K. E.**  
Supersonic cone wake-neck geometry 1101
- Kochanov, F. P.**  
A solution of the generalized problem of Il. Ya. Shtaerman 6702
- Kocharyan, N. M.**  
"Induced" piezo-effect in some polymers 3138
- Kochetkov, A. M.**  
The stress and deformation state of a developing fold 4207
- Kocheva, M. D.**  
Circular motions of a double pendulum 4911
- Kochina, N. N.**  
The solution of a diffusion problem with a nonlinear boundary condition 1959
- Kocker, H. M.**  
Ablation cooling of rocket engines 1251
- Kodnar, R.**  
The applicability of Davidenko's method to the solution of Karman's equations expressing the problems of nonlinear theory of slender webplates 11
- Koelink, J. T. H.**  
Approximate methods in z-steering test analysis 3862
- Koenig, D. C.**  
See Corsiglia, V. R. 9027
- Koenig, H. A.**  
Dynamical finite element analysis for elastic waves in beams and plates 1695
- Koenig, R. W.**  
Influence of high-turbine-inlet-temperature engines in a methane-fueled SST when takeoff jet noise limits are considered 5536
- Koerner, D. R.**  
See Appl, F. J. 5853
- Koosis, Ya.**  
See Dyurki, J. 1548
- Koeze, T. H.**  
The response to stretch of muscle spindle afferents of baboon's tibialis anticus and the effect of fusimotor stimulation 4812
- Kofanov, V. I.**  
Heat transfer and hydraulic resistance with flow of emulsion in tubes 8902
- Kogaev, V. P.**  
An estimate of the distribution of durability during variable amplitudes by the method of multiplication of stochastic matrices 2487  
See also Serensen, S. V. 3342
- Kogan, A. M.**  
Variational principles for the equations of the kinetic theory of gases 6372
- Kogan, B. Ya.**  
The modelling of irrational transfer functions 9251
- Kogan, P. A.**  
Determination of the optimum geometrical characteristics of ejectors 4380
- Kogan (Cohen), S. Ya.**  
A brief review of seismic wave absorption theories: Part 2 954
- Kogan, V. I.**  
See Vasilev, A. P. 623
- Koh, S. L.**  
Problems in nonlinear viscoelasticity 8422
- Kohl, A.**  
Some applications of digital fluid elements in logic circuitry 3070
- Kohli, J. P.**  
Optimum design of concrete spread footing by computer 2527
- Kohlmayer, G. F.**  
An indirect curve matching method for transient matrix heat-transfer testing in the low  $Ntu$ -range 6643  
Analytical solution of the single-blow problem by a double Laplace transform method 8915
- Kohn, S.**  
Contribution to the study of the ablation of some materials based on phenolic resins 2002
- Kohn, I.**  
See Matsuo, S. 2139
- Koibuchi, K.**  
Wave-form effect on fatigue strength and its rheological analysis 6947
- Koide, M.**  
See Yamada, Y. 117
- Koifman, Yu. I.**  
Large elastic strains of the plane flexure of a cantilever plate 7686  
Large elastic deformations in cylindrical bending of rectangular plates 8482
- Koivo, A. J.**  
A second-order variational method for discrete-time optimal control problems 8374
- Koizumi, T.**  
Thermal stresses in a long composite cylinder with constant surface temperature 6537
- Kokotovic, P. V.**  
Singular perturbation method for reducing the model order in optimal control design 9257
- Kokshaishkii, N. V.**  
See Kleinenberg, S.E. 9159
- Kokurin, Yu. L.**  
Possibilities for improving certain astronomical parameters of the Earth-Moon system by the optical radar method 3807
- Kolarov, T.**  
See Scheludko, A. 9633
- Kolb, A. W.**  
RTD sonic fatigue facility, design and performance characteristics 4702

- Kolchanova, E. A.**  
Conformal mapping of composite symmetrical doubly-connected regions 4925  
On the construction of a conformal mapping for a complex doubly-connected region 6623
- Kolesnikov, P. M.**  
Analytic solutions of boundary value problems in nonlinear electrodynamics by means of complete integrals, Part 4 9000  
Integration of nonlinear equations of electrodynamics by separation of variables 9871
- Kolesnikov, Yu. N.**  
Investigation of the loss of total pressure in the intake guide vanes of an axial compressor 491
- Kolev, K. S.**  
Determining cutting forces and feed rates in gear milling 3309
- Kolev, N.**  
Transition sections of the prestressed thin-walled structure of the combustion chamber of solid-fuel rocket motors 8693  
New prestressed thin-walled structure of the combustion chamber for solid-fuel rocket motors 8977
- Kolgadin, V. A.**  
Geometric nonlinear elastic-plastic bending of rectangular plates 7722  
See also Strelbitskaya, A. I. 1628
- Kollar, Gy.**  
See Pato, T. 2947
- Kollar, L.**  
Lateral stability of shell arches under antisymmetric loading 4107  
Lateral stability of shell arches with tie rods 5972
- Kollasch, C.**  
On the gravitational instability of a compressible cylinder 9658
- Kollerov, D. K.**  
Establishment of metrological foundations for gas analysis 3653
- Kolmanovskii, V. B.**  
Application of the Lyapunov method to linear systems with lag 3034
- Kolnik, S.**  
A new method in the determination of the reflection coefficient of an inhomogeneous layer 6045
- Kolodii, B. I.**  
See Burak, Ya. I. 7397
- Kolonits, F.**  
Steady-state thermal stresses in the vessel of a pressurized water reactor 9076
- Kolos, Ya. G.**  
See Aparisi, R. R. 9131
- Koloseus, H. J.**  
Circular hydraulic jump 6229
- Kolotilin, E. E.**  
Investigation of the errors in positioning the lines on long optical rulers 9201
- Kolovskii, M. Z.**  
See Babitskii, V. I. 4153
- Kolsky, H.**  
Experimental studies of the mechanical behavior of linear viscoelastic solids 4038
- Koltsov, V. S.**  
Some solutions of the problem of bending of a circular orthotropic plate on an elastic foundation 5005
- Koltunov, M. A.**  
See Bronskii, A. P. 105  
Ogibalov, P. M. 4109
- Komarnitskii, N. I.**  
Zones and planes of weakness in rocks and slope stability 3298
- Komarov, G. N.**  
Nonstationary thermal conductivity of multilayer systems 5485
- Komarov, L. N.**  
See Isakovich, M. A. 4164
- Komarovskii, L. V.**  
Question of the motion of a piston in a tube with counter-pressure 9851
- Komin, A. V.**  
See Volosov, V. I. 5580
- Komkov, N. I.**  
Problem in the control of an enterprise for petroleum extraction 3972
- Komkov, V.**  
On a variational formulation of problems in the classical continuum mechanics of solids 7642
- Komkova, L. A.**  
See Dulnev, G. N. 2768
- Komlos, K.**  
Two devices for measuring concrete viscosity 2740
- Komora, J.**  
Theoretical and experimental study of roughness coefficients and tangential stresses in channels with ice cover 7031
- Komornik, A.**  
Prediction of swelling pressure of clays 8578  
See also Getzler, Z. 3277
- Komura, S.**  
See Shen, H. W. 4325
- Konaga, T.**  
An investigation of the fatigue fracture of notched specimen: On plastic deformation ahead of the tip of the crack 2486  
Investigation on the fatigue damage of two phase alloy: Observations of the fatigue phenomena annealed ( $\alpha + \beta$ ) brass by means of X-ray microprobe and electron microscopy techniques 6953  
X-ray investigation on the mechanism of the fatigue damage of two-phases alloy: Observation of fatigue phenomena in annealed ( $\alpha + \beta$ ) brass by back-reflection microbeam X-ray diffraction and electron microscopy techniques 6955
- Konakov, P. K.**  
The reciprocity principle in the thermodynamics of irreversible processes 8886
- Konavalov, E. G.**  
A method for impact tensile testing at high and low temperatures 2516
- Konchits, I. K.**  
Measurement of the thermal conductivity of semiconductors by the bridge method 3654
- Kondner, R. L.**  
Energy storage and dissipation of a nonlinear soil using transform techniques of viscoelasticity 250
- Kondo, Y.**  
See Maeda, H. 640  
Fukuda, M. 2129
- Kondorskaya, N. V.**  
Some results of a study of the longitudinal-wave spectra from earthquakes in the Far East 1386
- Kondrashov, N. S.**  
Lower estimates of the natural oscillations of circular cylindrical shells 8546
- Kondratenko, A. N.**  
Kinetic theory of electromagnetic waves in a stratified plasma 618  
Kinetic theory of the propagation of electromagnetic waves through a plasma layer: Part 2 1286
- Kondrateva, G. S.**  
See Yankovskii, M. I. 2122
- Kondrikov, B. N.**  
See Annikov, V. E. 7361
- Konenkov, Yu. K.**  
Normal plate modes in a strip with transverse curvature 6823
- Koneru, S. R.**  
Stagnation point flows of non-Newtonian power law fluids 8732
- Kong, J.-A.**  
Wave behavior at an interface of a semi-infinite moving anisotropic medium 1272
- Koniak, D.**  
A plan for optimum enlargement of a water storage system 7040
- Konig, J. A.**  
See Klepaczko, J. 5950
- Konishi, I.**  
Elastic buckling of plate girders under pure bending 4106  
A network-topological study on static analysis of rigid framed structures 4271  
A theoretical consideration on helicoidal girder 5870
- Konkov, A. A.**  
See Ambartsumyan, Ye. N. 622
- Konkov, P. A.**  
See Peshanov, A. S. 4381
- Konno, M.**  
See Nakamura, H. 179
- Kono, K.**  
See Yamamoto, T. 8538
- Kononenko, G. P.**  
See Gorshunov, L. M. 2092
- Kononenko, V. O.**  
See Ganiev, R. F. 9407
- Kononov, A. P.**  
See Ganiev, R. F. 217

- Konopasek, M.**  
See Vaclavik, M. 7020
- Konoplev, Yu. G.**  
Investigation of the strength and stability of shallow spherical shells under the action of local loads 7704
- Konorski, A.**  
Mass and energy transfer phenomena in two-phase flow 8096
- Konovalov, D. A.**  
Experimental investigations of convective motions in the boundary layer of the atmosphere 9135  
See also Vorontsov, P. A. 8248
- Konovalov, E. G.**  
Stochastic theory of the stress-strain state of continua 4967
- Konovodchenko, V. I.**  
Shear strength of joint connections of earthquake proof large-panel buildings 6211
- Konstantinov, A. Kh.**  
Free oscillations of a conical panel 6005  
See also Babich, D. V. 5118
- Konstantinov, B. P.**  
Micrometeoroid investigations on the satellite "Cosmos-135" 9044
- Konstorum, G. Sh.**  
See Greim, I. A. 4298
- Konviser, I. A.**  
The equation of the flow of plastic lubricants with regard to the temperature factor 5267
- Konviz, V. S.**  
Prestressed RC pressure water conduit 4m in diameter 3399
- Konwerski, T.**  
Synthesis of third-order type-1 systems 4863
- Konyaev, V. G.**  
Optimum utilization of the aerodynamic forces for the maneuver of an aerospace vehicle 4640
- Kopal, Z.**  
Dynamical tides in close binary systems: Part 2, Centrally condensed models 2708
- Kopasenko, V. V.**  
Two problems of elasticity theory for a half strip 6707
- Kopcsak, P. J.**  
Matrix analysis and analytical geometry 8311
- Kopecki, H.**  
See Bychawski, Z. 5948
- Kopelev, S. Z.**  
Selecting the pitch of turbine fixed blade rows 9790
- Kopff, R.**  
See Loiseau, H. 5515
- Kopke, G.**  
A novel technique for measuring piston temperature 4499
- Koppel, L. B.**  
Optimum control of a class of distributed-parameter processes 1537
- Koppenwallner, G.**  
An experimental investigation of the low density hypersonic nozzle flow with vibrational relaxation 6272
- Kopytenko, Yu. A.**  
Some characteristics of distribution of plasma concentration and the field of Alfvén velocities in the Earth's magnetosphere 9869
- Koralun, M.**  
Optimum recording of stationary random processes 3958
- Koranyi, I.**  
Stability testing of a clamped frame with inclined columns 2541
- Korbut, B. A.**  
Dynamic stability of shells with an elastic filler 9398
- Korenblit, I. Ya.**  
Plasma-phonon magnetohydrodynamic waves in semimetals 8121
- Korenevskii, D. G.**  
On the particular form of parametric vibration in oscillators with self-controlled time lags 2282
- Korepova, I. V.**  
See Vinogradov, G. V. 738
- Koretskii, A. S.**  
Selecting a quality criterion for steam temperature and pressure control processes in large power plants 3968
- Korevaar, J.**  
Mathematical methods: Vol. 1, Linear algebra, normed spaces, distributions, integration 765
- Korganoff, A.**  
Methods of numerical analysis: Vol. 2, Elements of the theory of square and rectangular matrices in numerical analysis 6604
- Korger, M.**  
Mass-transfer coefficient in impingement flow from slotted nozzles 5519
- Korkegi, R. H.**  
Aerodynamics of the hypersonic slipper bearing 742  
A limiting condition for supersonic inviscid interaction in the corner of intersecting wedges 1833
- Kormanik, R.**  
Bearing-type bolted hybrid joints 6202
- Korn, A.**  
Behavior of elastic-plastic frames 2538
- Korn, G. A.**  
Digital-computer interface systems 7518
- Korn, T. S.**  
The concept of the frequency of sound 9928
- Kornacker, K.**  
Theory of inherently macroscopic processes, with application to heat and active transport 3625
- Korner, H.**  
See Gersten, K. 7133
- Kornev, V. M.**  
Edge effect and stability of a cylindrical shell in the case of external pressure 5061
- Form of the loss of stability of an elastic rod in the case of shock 5132
- Korneva, I. V.**  
See Ginzburg, I. P. 6294
- Kornfeld, P.**  
See Alterman, Z. 971
- Kornishin, M. S.**  
Flexible rectangular plates uniformly loaded along the axes of symmetry 1630  
Flexible plates and panels 9343  
See also Krivosheev, N. I. 7687
- Korobeinikov, V. P.**  
Point explosion in a detonating gas 4564
- Korolev, V. V.**  
Existence and uniqueness of a limit cycle in higher-dimensional autonomous systems 7754
- Koronaos, N.**  
See Ungar, E. E. 2415
- Koros, E.**  
The optimal calculation of penstocks of high-head power plants with and without pumped-storage reservoirs 3449
- Korotkov, P. A.**  
Designing of thermal flowmeters for liquid metals 4462
- Korovchinskii, M. V.**  
The distribution of stresses at the local contact of elastic bodies by a simultaneous action of normal and tangential forces in contact 2300
- Korpel, A.**  
Acoustic imaging and holography 4704  
Rapid sampling of acoustic holograms by laser-scanning techniques 8658
- Korshin, I. M.**  
Investigation of the flow of an ideal incompressible fluid in the rotors of turbines with the aid of an electro-integrator 4439
- Kortum, H.**  
On suitably fitting the graph structure of discrete systems to given problems 42  
On the limits of the infrared pyrometry 7220
- Kortzfleisch, B. v.**  
Investigation of the effect of temperature on the bite and the passing through the roll gap during hot rolling 260
- Kosaka, Y.**  
See Kagawa, Y. 2420
- Koschany, E.-M.**  
The operation of electroprecipitators with pulse voltages 4728
- Koschmieder, E. L.**  
On the wavelength of convective motions 6396  
Convection on a nonuniformly heated, rotating plane 8059
- Koseki, N.**  
Some model experiments on shallow water effect upon turning ability 1413

- Koshelev, L. I.**  
Experimental study of impulsive loads on engineering structures in soft soils 285
- Koshide, S.**  
See Hanawa, T. 180  
Hanawa, T. 203  
Hanawa, T. 5000
- Koshlyakov, V. N.**  
The equations and conditions of nonperturbability of a pendulum gyrocompass 3964  
Stability of solutions to a system of differential equations in the problem of autonomous determination of the coordinates of a moving object 4912
- Kosko, E.**  
The frequency spectrum of a structural member in coupled flexural-torsional vibration 174
- Kosky, P. G.**  
Nucleation site instability in nucleate boiling 1241  
Pool boiling heat transfer to cryogenic liquids: Part 1, Nucleate regime data and a test of some nucleate boiling correlations; Part 2, Peak nucleate boiling fluxes and a test of peak flux correlations; Part 3, Nucleate boiling data and peak nucleate boiling fluxes for nitrogen-oxygen mixtures 4537
- Kosmodamianskii, A. S.**  
Determination of the stressed state of an isotropic plate with circular holes 1571  
Approximate method of determining the stressed state of an anisotropic plate with two identical curvilinear holes 1588  
Concentration of stress in a thick plate weakened by a row of curvilinear holes 6717  
See also Guryanov, V. M. 85  
Kaloerov, S. A. 97  
Savin, G. N. 1578
- Kosmodemyanskii, A. A.**  
Optimum regimes of flight of aircraft with rocket motors 8829
- Kossecka, E.**  
The equations of motion of a concentrated dislocation 8446
- Kossecki, J.**  
One-dimensional motion of a dislocation in the field produced by another dislocation 3148  
See also Kossecka, E. 8446
- Kosterin, V. A.**  
Investigation of the mechanism of flame stabilization by gasdynamic screens 2823
- Kostetskii, B. I.**  
Development of dislocation arrays in surface layers of metals under certain types of loading 2345  
See also Shevelya, V. V. 5720  
Shevelya, V. V. 6120  
Nazarenko, P. V. 6962
- Kostilainen, V.**  
Two-phase air-water propulsion system based on the gravity effects 9140
- Kostrov, A. V.**  
Motion of a three-stage astatic gyroscope, taking into account the viscous friction in the suspension in the case of irregular pitching of the base 4637
- Kostrov, B. V.**  
Unsteady propagation of longitudinal shear cracks 8626  
The influence of a prestressed state on the propagation of plane seismic waves 9473
- Kostylev, V. M.**  
Heat transfer in a disperse insulator 2769
- Kostylev, V. V.**  
Stability of circular conical shells under the action of dynamic external pressure 8526
- Kostyuk, V. I.**  
A method of essential additional operator 5809
- Kostyuk, Z. D.**  
Experimental investigation of the state of stress of centrifugal pump casing 3354
- Kostyukov, A. A.**  
Theory of ship waves and wave resistance 7440
- Kostyukov, V. D.**  
Distribution of the density of sand in the sliding wedge in front of anchor plates 4187
- Koterazawa, K.**  
Change in structure and mechanical properties of rapidly stretched metals 4054
- Kotik, J.**  
Heave oscillations of a floating cylinder or sphere 5704  
The uniqueness problem for wave resistance calculated from singularity distributions which are exact at zero Froude number 9136
- Kotik, M. G.**  
Critical regimes of supersonic aircraft: Stall and spin 5407  
Critical regimes of supersonic jet aircraft: Stall and spin 8830
- Kotlyarevskii, P. A.**  
See Kesselman, P. M. 4489
- Kotorynski, W. P.**  
Self-convection in plane flow due to a source singularity of heat 3672
- Kotov, V. E.**  
Asynchronous processes and the computer memory 790
- Kotov, V. I.**  
See Aleksandrov, I. A. 2710  
Aleksandrov, I. A. 5598
- Kotov, Y. I.**  
Influence of long-time compression on cyclic strength of heavy concrete 3345
- Kottler, W.**  
Adhesion of electrically charged particles 701
- Koushanpour, E.**  
See Spickler, J. W. 4808
- Kovac, J.**  
Characteristic properties of invariants for the momentaneous state of body motion 79
- Kovacs, Y.**  
Seepage to groundwater created by hydraulic structures 703
- Kovachazy, F.**  
Model studies on retaining walls 9489
- Kovalchuk, S. V.**  
Inflow of water to a horizontal drain in a three-layer pressure bed of limited thickness 4743
- Kovalchuk, V. E.**  
See Vorovich, I. I. 4927
- Kovalenko, A. D.**  
Development of the theory of hypergeometric functions in connection with problems on elastic equilibrium of plates and shells 1629  
Equations and solutions of some problems of the theory of viscoelastic shells 5019  
The design of conical shells subjected to antisymmetric loadings 7706
- Kovalev, A. M.**  
On the quadratic integral of the equations of motion of a body with a fixed point 4831
- Kovalev, Iu. M.**  
See Kovalev, A. M. 4831
- Kovalevsky, J.**  
Review of some methods of programming of literal developments in celestial mechanics 28  
Trajectories of artificial celestial bodies as determined from observations 646  
Introduction to celestial mechanics 1322
- Kovalnogov, A. F.**  
See Shchukin, V. K. 5488
- Kovarik, V.**  
On thermal stresses in sandwich plates 2116  
Damped vibrations of sandwich plates 4152  
Sandwich plates under the combined action of transverse and longitudinal loading 7678  
See also Slapak, P. 5979
- Kovaszny, L. S. G.**  
Temperature compensated linearizer for hot-wire anemometer 5404  
See also Fujita, H. 4466  
Nee, V. W. 9734
- Kovitz, A. A.**  
Stability of a plane shock wave in free space and in the presence of rigid or interfacial boundaries 9672  
See also Briscoe, M. G. 1839
- Kovshov, A. N.**  
Certain motions of a rigid sphere sealed into an unbounded elastic medium 1700
- Kowalewicz, A.**  
Some results of investigation of spark ignition of two-phase mixtures 2005  
Experimental investigation of the probability of spark ignition of fuel droplet suspension in air stream 6431



- Kowalski, T.  
Turbulence suppression and viscous drag reduction by non-Newtonian additives 4412
- Koyanagi, Y.  
See Igarashi, S. 5220
- Kozachenko, L. S.  
See Babkin, V. S. 585
- Kozdoba, L. A.  
Some results of an investigation on the effects of boundary conditions on the temperature fields in the blades of turbomachines in stationary and transient conditions 5484
- Kozelouh, B.  
Design of timber structures according to the theory of limit states: Part 1, Principles of calculation 1754
- Kozhevnikov, S. N.  
On Painleve paradoxes 3100
- Kozhevnikov, V. N.  
Orographic perturbations in the two-dimensional stationary problem 9129
- Kozhinov, I. A.  
See Brdlik, P. M. 3709
- Kozicki, W.  
Filtration of non-Newtonian fluids 8221  
See also Tiu, C. 8731
- Kozin, C. H.  
See Kozin, F. 5105
- Kozin, F.  
A moment technique for system parameter identification 5105
- Kozlov, I. A.  
See Leshchenko, V. M. 9092
- Kozlov, L. F.  
Optimal boundary layer suction on a porous plate with allowance for initial flow turbulence 5525
- Kozlov, S. M.  
Investigation of the behavior of anchorages acted on by horizontal loads 4200
- Kozlova, I. G.  
Nonsymmetric flow of supersonic stream of perfect or real gas around the blunt part of a body of revolution 4370
- Krach, F. G.  
Reinforced concrete beam resonances 5995
- Kracht, A.  
Linear theoretical treatise on the optimal reduction of the wave resistance of given ship shapes by a bulbous bow in symmetrical or nonsymmetrical arrangement 5701  
Linearized theory of optimal diminution of the wave resistance of ship profiles by symmetric or asymmetric bulbous bow 7444
- Kraemer, K.  
On the momentum of the airfoil theory in the Trefftz-plane and in other plane, incompressible potential flows 7060
- Kraev, V. F.  
See Zvolksii, S. T. 3289
- Kraft, D. C.  
See Newman, R. K. 6865
- Kraft, G. A.  
See Koenig, R. W. 5536
- Kragelskii, I. V.  
See Dukhovskoi, E. A. 1421
- Kraichnan, R. H.  
Small-scale structure of a scalar field convected by turbulence 2673  
See also Orszag, S. A. 2041
- Kraiko, A. N.  
The onset of shock waves in non-equilibrium flows 3522
- Kraivnev, A. F.  
Design method for the synthesis of epicyclic gears 1778
- Kraj, W.  
Probabilistic model of colmatage and scouring phenomena 9109
- Krajcinovic, D. P.  
Stability of straight bars subjected to repeated impulsive compression 2396
- Kramarev, V. G.  
See Ganiev, R. F. 217
- Kramer, E.  
Self-excited oscillations of shafts due to transverse forces 5996
- Kramer, F.  
Acceptance testing lunar and planetary vehicles: A concept 4642
- Krapivin, V. F.  
A method of studying the movement of nonlinear systems by means of series of previously excited linear control systems 3042
- Krasilnikova, T. N.  
On the computation of statistical characteristics of pressure pulsations on the surface of a plate beneath a turbulent boundary layer 6305
- Krasilshchikov, A. P.  
An experimental investigation of the aerodynamic characteristics of a sphere in free flight up to Mach  $\approx 15$  6326
- Krasovskaya, T. K.  
See Ereemeev, G. G. 9083
- Krasovskii, A. A.  
Integral estimates of moments and the synthesis of nonstationary stable objects 4889  
Integral estimates of moments and the synthesis of linear systems 5799  
Integral estimates of moments and the synthesis of regulators of neutral objects 6653
- Krasovskii, N. N.  
The regularization of the rendezvous of motions problem 3812  
On the problem of attenuation of a linear system 3943  
On the stabilization of dynamic systems by supplementary forces 4866
- Krasovskii, V. I.  
Geometrical model for computation of solar thermal fluxes reflected from a planet 3693
- Krauklis, P. V.  
See Molotkov, I. A. 5679
- Kraus, H.  
Thin elastic shells: An introduction to the theoretical foundations and the analysis of their static and dynamic behavior 4073  
Elastic stresses in pressure vessel heads 4280
- Krause, A. R.  
A critical investigation of the factors controlling the long-life fatigue properties of aluminum alloys 6950  
See also Laird, C. 7835
- Krause, F.  
On the initial-value problem of the magneto fluid dynamic induction equation 6467
- Krause, L. N.  
See Glawe, G. E. 506  
Dudzinski, T. J. 8874
- Krause, S.  
Investigation of an MPD plasma jet by gasdynamic experimental methods 9890
- Krause, U.  
See Kortzfleisch, B. v. 260
- Krauss, M.  
The transfer system resulting from a Wiener-Hopf type integral equation and its physical realizability 8382
- Kraut, E. A.  
Diffraction of elastic waves by a rigid 90° wedge: Part 1; Part 2 1699  
Elastic-wave propagation and the factorization of matrix-valued functions of several complex variables 3261
- Kravchenko, V. F.  
Economic cutting speeds and feeds in rough gear hobbing 3315
- Kravtsov, Yu. A.  
Two new asymptotic methods in the theory of wave propagation in inhomogeneous media 7370
- Krchov, J.  
The impact effect in the method of concrete strength determination using the test hammer with comparison bar 307
- Krebs, W. M.  
See Cocks, F. H. 2495
- Kreher, P. J.  
See Buhler, H. 6139
- Kreid, D. K.  
See Goldstein, R. J. 8878
- Kreil, W.  
Man acting as controller: A contribution to the dynamical transfer model 5746
- Krein, M. G.  
See Gantmacher, F. R. 4118
- Kreindler, E.  
On the closed-loop sensitivity reduction of nonlinear systems 805  
On the definition and application of the sensitivity function 3939  
On minimization of trajectory sensitivity 8375
- Kreiss, H. -O.  
On difference approximations with wrong boundary values 4832

- Kreith, K.  
A variational principle for the first eigenvalue of a semifree membrane 7671
- Krejsa, E. A.  
See Stevens, G. H. 4549
- Krementulo, V. V.  
On the optimal stabilization of a rigid body with a fixed point by means of pendulums 1530
- Kremer, H.  
Mixing in a plane free-turbulent-jet diffusion flame 3725
- Kremith, R. D.  
Solid lubricant coatings applied by plasma spray 4790
- Krempel, G.  
Testing automobile tires: Part 2, Test results 912
- Krempel, E.  
Evaluation of high-elongation foil strain gages for measuring cyclic plastic strains 3370
- Kresin, K.  
Device for the measurement of pressures in the milli-Torr order 504
- Kretova, L. D.  
See Bykovtsev, G. I. 2434  
Bykovtsev, G. I. 3265
- Kreuzer, J. L.  
Ultrasonic holography for nondestructive testing 4252
- Krey, R. U.  
See Morris, J. C. 2052
- Kreyszig, E.  
Remarks on the iteration method of v. Krzywoblocki and Picard 9175
- Krieb, K. H.  
Determination of the economically optimal temperatures of the live steam and of the intermediate reheat for a 300 MW block 4484
- Kriebel, H.  
A study of the feasibility of active shock isolation 7562
- Kriebel, R. H.  
Anaerobic adhesives 1056
- Kriegel, E.  
Studies on cyclone separator models: Part 1, Experimental results 691  
Studies on cyclone separator models: Part 2, Theoretical results 692
- Krikorian, S.  
Distribution of thermodynamic functions at the exist of a smoke-stack for slow winds 2674
- Krisch, A.  
Study of the effect of testing speed in determining the yield point and tensile strength of steel specimens 6141
- Krishna, J.  
Blast tests at Obra Dam site 6907
- Krishna, P.  
Analysis of pretensioned cable systems 4270
- Krishna, S. V.  
See Joshi, N. E. 8998
- Krishna Murthy, S. S.  
Numerical solution of nonlinear equations 1475
- Krishnamurti, R.  
Finite amplitude convection with changing mean temperature: Part 2, An experimental test of the theory 3670  
Finite amplitude convection with changing mean temperature: Part 1, Theory 9817
- Krishna Murty, A. V.  
General theory of vibrations of cylindrical tubes: Part 1 6836
- Krishnamurty, V. V. G.  
Heat transfer in noncircular conduits: Part 2, Laminar forced convection in slits 2779  
Heat transfer in noncircular conduits: Part 3, Laminar forced convection in equilateral triangular ducts 5487  
Multistage counter-current heat exchangers with heat losses 5508  
See also Venkata Rao, C. 6398
- Krishnappa, G.  
Note on the "shear noise source terms" for a circular jet 8169
- Krishna Rao, K. G.  
Dynamic stability of radial drilling machine 205
- Krishna Rao, P. S. R.  
See Raghupathi Rao, C. 1800
- Krishnasamy, S.  
Response of a "plastic hinge" to low-cycle alternating deflections 3351  
See also Sherbourne, A. N. 5898  
Sherbourne, A. N. 9581
- Krishnaswamy, K. T.  
Strength and microcracking of plain concrete under triaxial compression 3379  
Measurement of internal strains in concrete 5229
- Krishtal, N. D.  
See Ruvin, Yu. R. 4524
- Kristiansen, M.  
Experimental investigation of harmonic ion cyclotron wave propagation and attenuation 8152
- Kritz, A. H.  
On the kinetic theory of plasmas 1285
- Krivenkov, Yu. P.  
Coupling of dynamic production models into networks 4846
- Krivoruchko, L. D.  
See Yakovlev, G. A. 2934
- Krivosheev, N. I.  
Flexure of a rectangular plate of tapered-variable rigidity 7687
- Krizek, F.  
See Korgner, M. 5519
- Krizek, R. J.  
Seasonal variation in flexible pavement deflections 7815
- Kroeger, F. B.  
Low pressure measurements in a hypersonic wind tunnel 1177
- Kroeger, P. G.  
An analysis of the effects of various parameters on the average void fractions in subcooled boiling 4538  
Average volumetric concentration in two-phase flow through rectangular channels 8087
- Kroell, C. K.  
See Patrick, L. M. 3885
- Kroger, D. G.  
Film condensation of saturated potassium vapor 549
- Krogmann, U.  
The single-axis gyro-stabilized platform: A control problem 3941
- Krokosky, E. M.  
Strength characteristics of basalt rock in ultra-high vacuum 4211  
Synthetic aortas for systemic simulators 10000  
See also Hackett, R. M. 6966
- Krokstad, A.  
Calculating the acoustical room response by the use of a ray tracing technique 6519
- Kroner, E.  
Interrelations between various branches of continuum mechanics 4933
- Kronzon, Y.  
See Rom, J. 6267
- Kropac, O.  
See Drexler, J. 6626
- Kross, D. A.  
A study of stiffness matrices for the analysis of flat plates 3168  
See also Wempner, G. A. 5933
- Krouskop, T.  
See Krokosky, E. M. 10000
- Kroy, W. H.  
Identification via nonlinear filtering 2224
- Krsmanovic, D.  
Initial and residual shear strength of hard rocks 2457
- Kruelle, G.  
See Hugel, H. 5557
- Kruger, C. H.  
Kinetic theory of two-temperature plasmas 5581  
Transport properties of MHD-generator plasmas 5595  
See also Viegas, J. R. 5588
- Kruglov, I. N.  
See Galitskii, V. G. 5146
- Kruml, F.  
Strains and stresses of reinforced concrete subject to shrinkage and creep 320
- Krupenio, N. N.  
Measurement of the specific effective scattering cross section of the Moon in the three-centimeter range 9909
- Krupennikov, B. N.  
See Troyanovskii, B. M. 9849
- Krupp, H.  
See Kottler, W. 701
- Krupskii, I. N.  
Determination of the thermal conductivity of paraffin at low temperatures 3644
- Krushchov, M. M.  
A new method for measuring wear on gear teeth 732
- Kruskal, M. D.  
See Orszag, S. A. 455

- Krutasova, E. I.  
A study of the relaxation of residual stresses in cold-worked 12Cr-Mo-V and 15Cr-Mo-V steels 6925
- Kruzhkov, S. N.  
On some problems with unknown boundaries for the heat conduction equation 3916
- Krylov, A. L.  
The Cauchy problem for the Laplace equation in the theory of electrochemical metal machining 5181
- Kryter, K. D.  
See Lukas, J. S. 668
- Krzywoblocki, M. Z. v.  
Certain epihydrodynamic problems as generalized optimal boundary value processes 3080
- Krzyworzeka, P.  
Practical aspects of identification 809  
See also Szyper, M. 810
- Kshnyakin, R. N.  
General solution of the equations of stability of a cylindrical shell loaded by an equilibrium pressure and its application 5060
- Ku, Y. H.  
Volterra functional analysis of nonlinear time-varying systems 168
- Kubair, V. G.  
Combined laminar free and forced convection heat transfer to non-Newtonian fluids 5492
- Kubaneck, G. R.  
Heat transfer to spheres in a confined plasma jet 4522  
Plasma jet research facility for solids: Gas heat transfer studies 9005
- Kubinek, M.  
Increasing the loadability of anti-friction bearings 740
- Kubo, R.  
Thermodynamics: An advanced course with problems and solutions 8029
- Kubo, S.  
Effect of sudden change of wall temperature in a thermal radiating gas 3695
- Kubota, H.  
See Karashima, K. 573  
Karashima, K. 3710
- Kubota, N.  
See Toyokura, T. 489
- Kubota, T.  
A second-order weak interaction expansion for moderately hypersonic flow past a flat plate 406  
Boundary-layer flows with large injection and heat transfer 1865
- Kuby, W. C.  
An experimental study of the effects of particle cloud impingement 1347
- Kucera, M.  
Gust load spectra of agricultural aircraft 1894
- Kucharczyk, P.  
See Fiszdon, W. 2704
- Kuchemann, D.  
Inviscid shear flow near the trailing edge of an airfoil 1135  
Progress in aeronautical sciences: Vol. 9 9742
- Kucherenko, V. P.  
Coaxial flow of liquid inside a semi-infinite volume with a moving boundary 6252  
The vibration of a viscous drop in a viscous medium 9765
- Kucheruk, I. M.  
See Dushchenko, V. P. 3692
- Kuczewski, S.  
Radial-flow blowers: Theory and basic design 2728
- Kudder, R. J.  
See Tung, D. H. H. 5908
- Kudinov, A. N.  
Equations of thermoelasticity and thermostability of the nonlinear theory of shallow orthotropic shells 9362
- Kudrik, P. I.  
See Zakovorotnyaya, L. G. 5940
- Kudrin, V. D.  
See Vybomov, V. G. 9393
- Kudryashev, L. I.  
Effect of free convection on the velocity and pressure field in the case of flow past a sphere in the case of small Reynolds numbers 1815
- Kudryashev, L. P.  
Effect of heat exchange on the aerodynamic characteristics in the case of flow past the curvilinear surface of a body 1827
- Kudryashov, V. G.  
See Ivanova, V. S. 1004
- Kudryavtsev, E. P.  
Statistical investigation of the deformation properties of sand bases 5139
- Kudryavtsev, I. V.  
On intersecting fatigue curves 8640
- Kugaenko, B. V.  
Evolution of almost-circular artificial Earth satellite orbits under the influence of zonal harmonics 9900
- Kugl, O.  
Prestressing V-belt drives 6188
- Kuhlmann-Wilsdorf, D.  
See Duncan, T. R. 2344  
Duncan, T. R. 3152
- Kuhn, L.  
Wave mixing in a bounded magneto-plasma 8997
- Kuhn, P.  
Strength calculations for sheet-metal parts with cracks 7827
- Kuhnast, E.  
Ultrasonic testing of older fire-tube boilers 1032  
Ultrasonic testing of inclined-tube boilers 6156
- Kuiken, H. K.  
Boundary layer conditions in free convection 440  
Axisymmetric free convection boundary-layer flow past slender bodies 3671
- Kuiper, R. A.  
An interferometric study of the shock-reflection process in ionizing argon 9695
- Kuipers, J.  
The safety of timber joints 6203
- Kukudzhanov, V. N.  
Propagation of waves in a rod considering the effect of the deformation rate 9465
- Kukulski, W.  
Investigation of rheology and strength features of lightweight concrete with ceramic aggregate, under axial load 3378
- Kukushkina, S. S.  
Computation of elastic constants from microscopic quantities for an elastic medium whose energy depends on deformation gradients 4030
- Kulagin, A. I.  
See Arifov, U. A. 3635
- Kulagin, V. V.  
Method of calculating the high-velocity characteristics of two-shaft ducted fan turbine engines 8868
- Kulak, G. L.  
See Fisher, J. W. 7913
- Kuleshov, V. A.  
See Kononov, E. G. 4967
- Kulikovskii, A. G.  
Influence of the walls on overheating instability in a magnetohydrodynamic channel 2033  
Stability of flow of a weakly compressible fluid in a plane pipe of large, but finite length 7035  
See also Barmin, A. A. 4608
- Kulikowski, R.  
Optimum control of multidimensional and multilevel systems 841
- Kulina, M. R.  
See Mullen, J. F. 6861
- Kulisch, U.  
See Apostolatos, N. 3930
- Kulka, F.  
Prestressing systems for secondary and primary containment structures 7887
- Kulkarni, P. T.  
Accurate analysis of second order relay servomechanisms with dead-zone 2259
- Kuloor, N. R.  
See Radhakrishnan, V. N. 7271  
Venkatram, T. 8935  
Das, T. R. 9800
- Kuluva, N. M.  
See Knuth, E. L. 3538
- Kumada, M.  
See Mabuchi, I. 8948
- Kumagai, K.  
The stress concentration factors produced by a projection under pure bending 869  
The stress concentration factor produced by a projection under tensile load 6961

- Kumai, T.  
Vibration of a huge tanker with special consideration to athwartship flexibility 5090
- Kumakura, S.  
The Bauschinger effect in carbon steels 4053
- Kumar, A.  
The effect of stress rate and temperature on the strength of basalt and granite 3290
- Kumar, R.  
Axisymmetric vibrations of a finite, isotropic, solid circular cylinder, immersed in an acoustic medium 927  
Flexural vibrations of a perfectly conducting solid circular cylinder in the presence of a uniform axial magnetic field 931  
Axisymmetric vibrations of a finite, isotropic disk 6827
- Kumar, S.  
See Spodick, D. H. 4804
- Kumar, V. M.  
Propagation of elastic stress waves in projectiles: A numerical analysis 5130
- Kumar Bakshi, S.  
Radial deformation of a polarized annular disk of piezoelectric material subjected to gamma ray heating 2117
- Kummer, B.  
See Bock, W. J. 3887
- Kundu, B. B.  
Note on the transverse vibration of a composite circular membrane 928
- Kundu, H. N.  
Note on the problems of inclusion in an isotropic elastic medium 5857
- Kunetsov, N. N.  
One-dimensional flow of conducting gas in a magnetohydrodynamic gun 598
- Kung, E. Y.  
A mathematical model of heat transfer in continuous casting 3702
- Kunin, I. A.  
The theory of elastic media with microstructure and the theory of dislocations 5863  
Fields of randomly distributed dislocations and force dipoles in an infinite elastic anisotropic medium 7625
- Kunio, T.  
See Miyano, Y. 9531
- Kunstmann, D.  
Model investigations on the propagation of sound across an audience: Scattering of sound by rows of spheres 7371
- Kuo, C. T.  
See Hsu, C. S. 7728
- Kuo, E. Y. T.  
Acoustic field generated by a vibrating boundary: Part 2, Planar array vibration and synthesis 9060
- Kuo, J. T.  
See Hade, G. 4755
- Kupper, W.  
State of plastic failure of inclined soil or snow layers 4975
- Kurasawa, T.  
Nonlinear kinetics of plasma: Part 2, Fundamental equations relating to ion plasma wave 9007
- Kurashige, M.  
Thermal stresses in a circular cylinder with a ring of holes 2932  
Thermal flexure of a circular plate with a ring of holes 6533
- Kurbanaliev, Z.  
Solution of the first boundary-value problem of the mathematical theory of elasticity by the method of the conditional minimum with the aid of general solution expressions 93
- Kurland, G. S.  
See Charm, S. 755  
Charm, S. 8306
- Kuroda, M.  
The mechanism of occurrence and classification of avalanches 8237
- Kuroiwa, J. H.  
See Jennings, P. C. 3413
- Kuroki, K.  
On the Rockwell hardness test of thin metal sheet: The effects of roughnesses of the anvil surface and the reverse surface of the specimen 308
- Kurten, L. I.  
See Markovets, M. P. 3133
- Kurtz, E. F., Jr.  
See Steyerl, A. 7313
- Kurz, W.  
Ultrasonic coupling on hot metal by surface cooling 9069
- Kurzanskii, A. B.  
Analytical design of a controller in a system with noise dependent on control 6684  
On the problem of control for a system of differential equations with time lag 8373
- Kurzunov, V. V.  
On the pulsatory combustion of gas in a closed volume 8954
- Kurzweil, L.  
See Crandall, S. H. 2437
- Kus, S.  
See Chrzanowski, M. 7660
- Kusakov, M. M.  
Equipment for measuring double reaction in a flow 1794
- Kuscer, I.  
Relaxation constants of a uniform hard-sphere gas 7209
- Kushchev, E. I.  
See Ogarkov, B. I. 534
- Kushner, H. J.  
Optimal discounted stochastic control for diffusion processes 62  
Finite time stochastic stability and the analysis of tracking systems 818  
On the optimal control of a system governed by a linear parabolic equation with white noise inputs 8380
- Kushwaha, R. S.  
See Srivastava, K. M. 4599
- Kuskova, T. V.  
Difference method for calculating the flow of a viscous incompressible fluid 380
- Kuslitskii, A. B.  
Effect of metallurgical factors on the low-endurance fatigue of steel in some ambient media 2492
- Kussner, H. G.  
Theory of a thin profile oscillating in compressible subsonic flow 5406
- Kusoy, M. I.  
See Horstman, C. C. 5392
- Kusuda, H.  
A study on nucleate boiling in liquid film 4540
- Kusui, T.  
Liquid jet flow into still gas: The effect of nozzle loss coefficient and area coefficient on the core-length of water jet 7823
- Kutateladze, G. A.  
Solution of the problem of the torsion of isotropic homogeneous rods 122  
Torsion of a rod with the cross section in the form of a sector of an annular ring 7613
- Kutateladze, S. S.  
Theory of heat transfer in nucleate boiling 3706
- Kutikov, A. I.  
Calculation of long inhomogeneous and multilayer plates of equal resistance 8489  
See also Butenko, Yu. I. 155
- Kutler, V. P.  
Deduction of an expression for finding the angular acceleration of the slide-bar of a simple crankshaft/slide-bar mechanism using the Coriolis theorem 8714
- Kutz, M.  
Temperature control 4545
- Kuttscher, E. W.  
Thermal and infrared methods for nondestructive testing of adhesive-bonded structures 6155
- Kuvaev, Yu. F.  
See Marshak, Yu. L. 3734
- Kuvshinskii, E. V.  
See Bulygin, A. N. 4023
- Kuwano, N.  
See Hirano, F. 8287
- Kuyt, B.  
The ultimate torsional resistance of rectangular reinforced concrete beams 7881
- Kuzikovskiy, A. V.  
Kinetics of the evaporation of an aqueous aerosol in an optical radiation field 2975
- Kuzma, D. C.  
Fluid inertia effects in squeeze films 7455
- Kuzmak, G. E.  
Optimal transfers between nearby noncoplanar near-circular orbits 647  
Optimal multipulse flights between close quasi-circular noncoplanar orbits: Part 1 2891



- Kuzmenko, A. P.**  
See *Burlyakov, A. V.* 9366
- Kuzmin, G. A.**  
On the stability of motion in case of two small positive roots 3041
- Kuzmin, Iu. N.**  
The contact problem of an elastic layer compressed by two punches 6722
- Kuznetsov, A. I.**  
The "root locus" curves of nonlinear impulse automatic systems 7537
- Kuznetsov, G. N.**  
See *Shalnev, K. K.* 8174
- Kuznetsov, I. L.**  
See *Derevianko, N. F.* 4424
- Kuznetsov, L. V.**  
See *Rivkin, S. A.* 4197
- Kuznetsov, N. M.**  
Radiativity and the relationship between electron and ion temperature in an optically transparent plasma 5583
- Kuznetsov, V. K.**  
See *Hsiu-fen, K.* 2110
- Kuznetsov, V. R.**  
On the probability distribution of the difference of velocities at two distinct points of a homogeneous, isotropic turbulent flow 2675
- Kuznetsov, V. V.**  
See *Gvozdev, A. A.* 5680
- Kuyun, A. I.**  
See *Ischenko, I. I.* 1020
- Kveton, J.**  
The supersonic wind tunnel of the IT for basic research in two-dimensional cascades 514
- Kvon, V. I.**  
On a case of unsteady flow in an open dry channel 2592  
See also *Vasilev, O. F.* 3456
- Kvyatkovsky, G. A.**  
See *Ivanov, G. S.* 5234
- Kwakernaak, H.**  
Optimal control of simple chemical processes 1539  
Minimum-vibration cam profiles 1769
- Kwaszczynska, K.**  
A theoretical analysis of plastic compression of short circular cylinders 5893
- Kylberg, G.**  
Measurement of interference fringe separation by a moire technique 3368
- Kyong, S. H.**  
A direct method for a class of optimal control problems 3977
- Kysela, Z.**  
See *Myslivec, A.* 9483
- Kyser, E. L.**  
Linear elastic dipolar plates 5920
- Kyuchukov, G.**  
See *Boyadzhiev, L.* 8104
- Kyupper, A. B.**  
Static strength of bolted joints in reinforced plastics 1052
- L**
- Laberge, J. G.**  
Longitudinal aerodynamic characteristics of Black Brant V at Mach number 7 in helium 1889
- Labourdette, R.**  
See *Beatrix, C.* 9232
- Labutin, A. A.**  
Investigation of the effect of the rigidity of the scheme of the stressed state on the beginning of failure of metals (extension-flexure) 6942
- Lackey, W. J.**  
FORMAT II - Second version of Fortran Matrix Abstraction Technique: Vol. 2, Supplement 1, Description of digital computer program 7512
- Lacombe, H.**  
See *Hardy, J. M.* 418
- Laczkowski, R.**  
Natural torsional vibration of a prismatic bar on three supports 6817
- Ladiev, R. Y.**  
Change in heat transfer with time under various hydrodynamic working conditions of an evaporation circuit with artificial circulation 4515  
Change in heat transfer with time under various hydrodynamic working conditions of an evaporation circuit with natural circulation 5494
- Laermann, K. -H.**  
The elastically supported beam of variable cross section, considering shear deformation 6754
- Lafferty, J. F.**  
Velocity distributions in two-phase vortex flow 4356
- Laffitte, P.**  
Quadratic chain-breaking processes and their influence on the kinetics of three-limit explosion systems in the explosion peninsula 7298
- Laganelli, A. L.**  
Mass transfer cooling on a porous flat plate in carbon-dioxide and air streams 4555
- Lagneborg, R.**  
Recovery creep in materials hardened by a second phase 5883
- Lagun, V. P.**  
A procedure for gasdynamic investigation of the low-pressure section of full-scale steam turbines 8105
- Lahaye, E.**  
The determination and calculation of the true trajectories for *N* bodies by iterations of convergent integrals 1325
- Lahiri, A.**  
See *Chowdhury, S. B.* 3826
- Lahiri, A. K.**  
Kinetics of reaction of porous solid with gas 9972
- Lahr, G.**  
Application of gas turbine in combined gas steam-processes 2751
- Lahti, G. P.**  
See *Clark, M. R.* 1265
- Lai, C.**  
See *Baltzer, R. A.* 2585
- Lai, J. R.**  
Microsensor for measuring humidity 7193
- Lai, P. T.**  
Elastic potentials Green's tensor: Part 1 9295
- Laing, L. M.**  
See *Rushton, K. R.* 7199  
See *Rushton, K. R.* 9219
- Lainiotis, D. G.**  
See *Hilborn, C. G., Jr.* 3998
- Laird, C.**  
A theory of crack nucleation in high strain fatigue 7835  
See also *Krause, A. R.* 6950
- Laitone, E. V.**  
Seiches over parabolic bottoms 3585  
Shallow water waves in canals of variable section 6336
- Lakshmana Rao, N. S.**  
A unified chart for boundary layer parameters and shape factors 5380
- Lakshmanan, R.**  
See *Krisch, A.* 6141
- Lakshmikantham, C.**  
Bending general instability of shallow-stiffened cylinders 6784
- Lakshmikantham, V.**  
Control systems and differential inequalities 4862  
Stability of controlled motion 9237
- Lakshminarasiah, M.**  
Temperature measurement by sound velocity method 3645
- Lakshminarayana, G.**  
See *Sarma, K. S.* 4932
- Lal, G. K.**  
Forces in vertical surface grinding 5177  
The electrodynamics of electromagnetic forming 6919
- Lal, K.**  
The application of the asymptotic theory to the flow past a porous sphere 4414  
On the steady laminar flow of a viscous incompressible fluid through a tube whose cross section is formed by the inter-section of two circles 5302
- Lal, S.**  
See *Gupta, P. C.* 4216
- Lalanne, F.**  
See *Laroche, J.* 3634
- Laliberte, G. E.**  
Permeability calculated from desaturation data 4739
- Lam, S. H.**  
One-dimensional static pinch solutions 2049
- Lamar, J. E.**  
A theoretical study of the effect of pivot location on the aerodynamic-center movement of variable-sweep wings in incompressible flow 1880

- Lamb, J. P.  
An integral analysis of turbulent reattachment applied to plane supersonic base flows 4404  
Some correlations of theory and experiment for developing turbulent free shear layers 6291
- Lambert, E. R.  
A theory on the mechanics of axisymmetric extrusion through conical dies 9505
- Lambert, R. F.  
See Fang, T. N. 7783
- Lambert, R. J.  
An analysis of the numerical stability of predictor-corrector solutions of nonlinear ordinary differential equations 5781
- Lambiotte, J. J., Jr.  
See McKee, T. B. 5699
- Lambourion, J.  
Pressure pick-up for supersonic detonation with compensation of the effect of ground vibration 6363
- Lamper, R. E.  
System of functions and the numerical convergence in the application of the Ritz method to the oscillations of an elastic vessel 2409
- Lancaster, E. R.  
Recursion formulas for the coefficients of the  $f$  and  $g$  series 1333
- Lancaster, J. K.  
Composite self-lubricating bearing materials 5726  
See also Giltrow, J. P. 4776  
Grattan, P. A. 8275
- Lance, R. H.  
The yield point load of a conical shell 6765
- Lanchon, H.  
On the solution of the problem of elastoplastic torsion of a cylindrical bar with arbitrary cross section 9332
- Lancia, R.  
See Foulard, C. 6652
- Land, N. S.  
Scaled lunar module jet erosion experiments 6074
- Landahl, M. T.  
See White, R. B. 2691  
Gupta, A. K. 3588
- Landau, H. G.  
Computer solution of the ultracentrifuge equation 9163
- Landel, R. F.  
Some effects of fillers on the deformation and rupture of an elastomer 6734
- Landis, E. M.  
See Vishik, M. I. 3003
- Landis, F.  
See Thorsen, R. 3666
- Lando, Yu. K.  
Eigenvalues and eigenfunctions for integrodifferential operators 4830
- Landrot, J. P.  
Nonstationary operation of thermionic converters 1186
- Landrum, E. J.  
Effect of shape changes on the aerodynamic characteristics of a twisted and cambered arrow wing at Mach number 2.03 1138
- Landweber, L.  
Study of Eggers' method for the determination of wavemaking resistance 5700  
See also Tzou, K. T. S. 9137
- Lang, G.  
See Jorn, R. 1686
- Lang, S. B.  
Pyroelectric thermometer for use at low temperatures 7219
- Langdon, F. J.  
See Griffiths, I. D. 4671
- Lange, B. O.  
See Hales, K. A. 6687
- Lange, F. F.  
Interaction between overlapping parallel cracks: A photoelastic study 5202
- Lange, G. W.  
Representation of the human operator as a sampled-data system 3896
- Lange, K. W.  
Measurement of the spectral emissivity of metals and metal alloys 8925
- Lange, O. I.  
Position function of a three-dimensional four-bar mechanism 1785
- Lange, W.  
See Coermann, R. 8308
- Langer, G.  
An automated aircraft instrumentation system for cloud nucleation studies 4771
- Langfelder, L. J.  
Air permeability of compacted cohesive soils 5154
- Langhaar, H. L.  
See Carley, T. G. 1626
- Langhaar, J. W.  
See Wachtell, G. P. 8063
- Langleigben, S. V.  
See Koifman, Yu. I. 7686
- Langley, G. O.  
See Britton, W. G. B. 1696
- Langley, M.  
The five point loading shear stiffness test 303
- Langlois, M.  
A particular type of three-body problem 9271
- Langner, C. G.  
See Hoese, F. O. 5629
- Langstone, P. F.  
See Cottrell, C. L. M. 7834
- Lanzara, G.  
The design of a formed guide to provide automatic stability for air cushion vehicles 639
- Lanzo, C. D.  
Measurement of the transmissivity of a carbon-particle-seeded nitrogen jet 513
- Lapa, V. G.  
See Ivakhnenko, A. G. 3009
- Lapidus, L.  
See Rothenberger, B. F. 2226  
Rothenberger, B. F. 2227
- Lapin, A. D.  
Application of resonators for the enhancement of sound attenuation in a waveguide lined with a soundproofing material 671  
Radiation of sound by a vibrating nonuniform wall 2910  
Reflection of a plane wave at a rough solid surface 4679  
Sound propagation in a waveguide of variable cross section 4696
- Laplace, P. S.  
Celestial mechanics 6490
- Lappa, M. I.  
Experimental investigation of the effect of nonlinearity of the elastic properties of the oil layer on the critical velocity of rotors 189
- Lapte, Yu. N.  
Single-stage hydraulic torque converters with superimposed rotation of reactor 2550
- Laratta, A.  
Perturbations to the radial motion of a viscous incompressible fluid 3502  
On some dynamical problems arising in the theory of lubrication: Part 4 6193
- Lardner, R. W.  
Plane strain plasticity of single crystals 8439
- Lardner, T. J.  
Symmetric deformation of a circular cylindrical shell of variable wall thickness 1635  
Exact solution of the equations for shallow shells of revolution 4074  
Approximate solutions of combined conduction-radiation problems 7229
- Larichev, O. I.  
Suboptimal least-time control of a system with a bounded control 6691
- Laricheva, V. V.  
Multivaluedness of extremal solutions to optimal control problems 5828
- Larionescu, D.  
See Bogdan, R. C. 4306
- Larionov, V. V.  
Kinetics of the stressed state and failure in zones of concentration in the case of cyclic loading 275  
See also Gusenkov, A. P. 274
- Larkin, E. W.  
See Taylor, K. V. 7907
- Larkin, L. A.  
Theoretical bearing capacity of very shallow footings 9481
- Laroche, J.  
Mobile hydrogen generators and fuel cells at medium temperature 3634
- Larrain, J.  
Cross-condition errors in thermocouples: Correction of long swaged thermocouples at high temperatures 9804

- Larras, J.**  
Loss of head in rectilinear flow over rippled bottoms 366  
Velocity distribution in a rectilinear turbulent uniform flow with free surface 458  
Fluvial hydraulics problems 8739
- Larsen-Badse, J.**  
Influence of grit size on the groove formation during sliding abrasion 5718
- Larson, A. V.**  
Experiments on current rotations in an MPD engine 9889
- Larson, D. B.**  
*See Cherry, J. T.* 4208
- Larson, R. E.**  
Optimum quantization in dynamic systems 834
- Larsson, L. -E.**  
Calculation of wind stabilizing wall slabs in multistory buildings 4283  
Laying water pipes above the frost-free depth 7226
- Lasdon, L. S.**  
An interior penalty method for inequality constrained optimal control problems 1512
- Lashenikov, B. Ya.**  
Calculation of orthotropic cylindrical constructions with the aid of electronic digital computers 1643
- Lasher, L. E.**  
Effect of shock precursor absorption on superorbital entry heating 4643
- Lassan, V. L.**  
Measurements of movement parameters 3256  
Basic vibrometric methods and means 4157
- Lassman, F. M.**  
*See Nelson, D. A.* 5749
- Laster, S. J.**  
Preferential excitation of refracting interfaces by use of a source array 8239
- Lastman, G. J.**  
A test for the sign of the second variation 5830
- La Tegola, A.**  
Stability of reinforced concrete piers of the bridges 333  
Elastic stability of rectangular shells in membrane equilibrium 6790
- Lates, M.**  
Statistic characteristics of pressure pulsations on gates and intake valves during the filling of navigation lock chambers 7053
- Latham, G. V.**  
Pressure variations produced at the ocean bottom by hurricanes 9123
- Latham, J.**  
*See Brazier-Smith, P. R.* 4721
- Latif Pasha, M.**  
On the steady rotation of a second order fluid in between two porous coaxial circular cylinders 3438
- Latour, P. R.**  
On the relation between state and adjoint variable initial conditions in optimum control theory 3982
- Latzel, W.**  
On the trajectories of systems with lags 6658
- Lau, L. W.**  
*See Saxe, R. F.* 9918
- Lau, Y. L.**  
Flow of stratified fluid through curved screens 7151
- Lauer, O.**  
The reproducibility of analysis sieving in the fine range 7417
- Launay, P.**  
Prestressed concrete pressure vessels: Two-dimensional thermoelasticity computer program 9079
- Laura, P. A.**  
Unsteady heat conduction in plates of polygonal shape 531  
Complex variable theory and elastic stability problems 7724
- Laurent, F.**  
On the analog simulation of certain systems with memory 4861
- Laurent, P. J.**  
Representation of experimental data by smoothing spline functions and optimal evaluation of continuous linear functionals 9188
- Laurienzo, P.**  
*See Partel, G.* 4576
- Laurmann, J. A.**  
First collision calculation of cone drag under hypersonic rarefied flow conditions 3571
- Lauterbach, R.**  
Friction under high normal pressures 726
- Lauvstad, V. R.**  
On nonuniform Mach number expansion of the Navier-Stokes equations and its relation to aerodynamically generated sound 4663
- Lavan, Z.**  
*See Fejer, A.* 4344
- Lavender, J. E.**  
*See Schoffen, H. M.* 825
- Lavlenko, A. A.**  
*See Kudryashev, L. P.* 1827
- Lavrenko, N. I.**  
*See Kuzmak, G. E.* 647
- Lavrik, V. I.**  
Calculation of filtration through an earth-fill dam with internal drainage located below the trailrace level 5670
- Lavrik, V. N.**  
Method for determining the osculating transfer orbit of an artificial Earth satellite 6497
- Lavrinovich, M. M.**  
Reliability of elements of automation: Part 2, Method of detecting parameters which affect reliability 3052
- Lawn, B. R.**  
*See Burns, S. J.* 5195
- Lawrence, R. A.**  
Factors affecting flow separation in contoured supersonic nozzles 3526
- Lawrie, J. M.**  
*See Lines, D. J.* 4784
- Laws, N.**  
A simple dipolar curve 3111  
*See also Green, A. E.* 2601  
*Green, A. E.* 3109  
*Green, A. E.* 5040
- Lawson, M.**  
Selected topics in electrofluid dynamic energy conversion 4612
- Lawton, J.**  
Radiative transfer from an inhomogeneous nonscattering gas in the infrared 1231
- Lax, P. D.**  
Hyperbolic difference equations: A review of the Courant-Friedrichs-Lewy paper in the light of recent developments 9184
- Lazan, B. J.**  
Damping of materials and members in structural mechanics 4150
- Lazarescu, D.**  
Scientific basis for analyzing throughout the whole watershed the discharge computed at individual gaging stations 713
- Lazarovitch, I. M.**  
Columns under focused load 5043
- Lazaryan, V. A.**  
Research in the area of the transition regime of the motion of mechanical systems performed in Dnepropetrovsk 4143
- Leaf, G. A. V.**  
The impact of needles on a knitting cam 1770  
*See also Grosberg, P.* 7599
- Leake, R. J.**  
Construction of suboptimal control sequences 1542
- Leatherwood, J. D.**  
Heave response of a plenum air cushion including passive and active control concepts 6673
- Leaton, B. R.**  
*See Malin, S. R. C.* 8241
- Leavitt, J. A.**  
Computational aspects of the detached shock problem 1837  
A power series method for solving nonlinear boundary value problems 9179
- Lebedev, A. A.**  
A possible combination of the conditions of plastic and brittle fracture 8621
- Lebedev, A. I.**  
*See Rudakob, V. N.* 296
- Lebedev, S. L.**  
Some results of the numerical integration of the equation system describing processes in mixed layered clouds 9128
- Lebedev, V. K.**  
*See Gushcha, O. I.* 961
- Lebedinets, L. N.**  
The carrying capacity of hingeless reinforced concrete arches of variable cross section 1042
- Lebedinskii, S. V.**  
*See Shabarov, V. V.* 2509

- LeBlond, P. H.  
Gas diffusion from ascending gas bubbles 9965
- Le Boiteux, H.  
On an energetic criterion of the elastic limit 888
- Le Bouc, F.  
Aerothermochemical study of furnaces and boilers 586
- Lebreton, J. -C.  
Calculation of the movements of a ship or of a platform secured in the swell 9139
- Leca, A.  
See Danila, N. 5454
- Lecher, W. A.  
Considerations of similarity for hydroelastic vibrations 946
- Leckie, F. A.  
Plastic instability of a spherical shell 7737  
See also Penny, R. K. 3373
- Leclerc, E. J.  
See Levy, S. 5836
- Lederer, P. S.  
NBS interagency transducer project 4476
- Lederman, S.  
Application of microwave technique to the measurement of electron density and ionization time 2877
- Lee, B.  
The improvement of a low-cost inertial navigator through conditional feedback 3963
- Lee, B. H. K.  
The initial phases of collapse of an imploding shock wave and the application to hypersonic internal flow 3518
- Lee, C. E.  
On wave damping in harbors 6555
- Lee, C. -H.  
See Lance, R. H. 6765
- Lee, C. K.  
See Neilson, J. H. 2835  
Neilson, J. H. 7115  
Neilson, J. H. 8974
- Lee, C. M.  
The second-order theory of heaving cylinders in a free surface 8262
- Lee, C. -O.  
Electrohydrodynamic ridge instability of a thin film flowing down an inclined plate 8850
- Lee, C. W.  
Bending and twisting of thick plates with a circular hole 3187
- Lee, E. B.  
Linear optimal control problems with isoperimetric constraints 835  
See also Chyung, D. H. 4890
- Lee, E. H.  
Finite-strain elastic-plastic theory with application to plane-wave analysis 6051
- Lee, E. S.  
Quasilinearization technique for solution of boundary-layer equations 4405
- Lee, H. C.  
See Campbell-Allen, D. 334
- Lee, H. Q.  
See Erzberger, H. 9763
- Lee, H. R.  
Runway roughness effects on new aircraft types 6848
- Lee, I.  
See Schley, C. H., Jr. 4891
- Lee, I. K.  
Soil mechanics: Selected topics 7799
- Lee, J. D.  
Nature of the flow in a swirl chamber having endwall flow reversal 1077
- Lee, J. H.  
Laser spark ignition of chemically reactive gases 8950  
See also Bach, G. G. 9916
- Lee, J. H. S.  
See Akinsete, V. A. 9680
- Lee, K.  
Transport processes in flow around a sphere with particular reference to the transfer of mass 5517
- Lee, K. F.  
Electrostatic waves in inhomogeneous and magnetized plasmas 9867  
See also Fejer, J. A. 603
- Lee, K. L.  
Strength of compacted clay at high pressure 6066  
Horizontal movements related to subsidence 9487  
See also Seed, H. B. 2445
- Lee, L. C.  
Analysis of plastic spherical shells 4979
- Lee, L. H.  
On the approximate and numerical solution of Orr-Sommerfeld problems 7510
- Lee, P. R.  
See Gray, P. 3731
- Lee, R.  
Stability of the permanent rotations of a self-excited rigid body 4009
- Lee, R. G.  
Isothermal adsorption in fixed beds 9101
- Lee, R. H.  
See Goldberg, J. E. 7675
- Lee, R. S.  
See Cheng, H. K. 1849
- Lee, S.  
See Soulant, H. 6877
- Lee, S. D.  
On the axisymmetric collapse of cylindrical shells under external hydrostatic pressure 1657
- Lee, S. -L.  
Hyperbolic cooling towers under wind load 3403  
Prismatic shells continuous over transverse diaphragms 5014  
Natural convection plume above a circular ring fire 5493  
See also Hongladaromp, T. 323  
Shieh, W. Y. J. 4067
- Karasudhi, P. 5982  
Perelman, D. S. 7006  
Manuel, F. S. 9339
- Lee, S. S.  
See Hsu, C. S. 7728
- Lee, S. Y.  
See McAlevy, R. F., III 6437  
Ames, W. F. 7751
- Lee, T. M.  
Flexure of circular plate by concentrated force 5922
- Lee, T. S.  
Integral of motion for centered unsteady flows 7982
- Lee, T. -t.  
Multiple folded plates with various end conditions 3181  
See also Johnson, C. D. 4088
- Lee, Y.  
Turbulent heat transfer from the core tube in thermal entrance regions of concentric annuli 1964
- Lee, Y. -C.  
Dynamics of rectangular plates 9417
- Lee, Y. S.  
A time-optimal adaptive control system via adaptive switching hypersurface 4904
- Leech, J. W.  
Numerical calculation technique for large elastic-plastic transient deformations of thin shells 6048
- Leela, S.  
See Lakshmikantham, V. 9237
- Lees, L.  
See Alber, I. E. 1829
- LeFur, B.  
See Dupeyrat, G. 8230
- Legendre, R.  
Plane flow of viscous incompressible fluid around a parabolic profile 382  
Determination of turbomachine bucket and blade profiles 4437  
Aerodynamic damping and reduction of frequency of turbomachine blades 6864  
Flow field around a plane thin-bar grid under small random vibrations 6869  
Plane flow of a viscous incompressible fluid around an obstacle extending downstream at infinity 7067
- Leger, Ph.  
Viscoelastic half-space under a moving load 6723
- Lehane, J. A.  
See Cross, R. C. 9868
- Leheny, R. F.  
See Kuhn, L. 8997
- Lehman, M. L.  
Stress-distribution in the alveolar bone 7464
- Lehmann, J. F.  
See Kirkpatrick, G. S. 9166
- Lehmann, T.  
Theory of plasticity 1601
- Lehr, K. R.  
Fatigue crack propagation and strain cycling properties 8634



- Lehman, D. E.  
Comparative numerical applications of the reverse-flow theorem to oscillating wings and control surfaces 2066  
Calculation of subsonic flutter derivatives for an arrowhead wing with control surfaces 9753  
See also Garner, H. C. 7155
- Lehto, D. L.  
See Lutzky, M. 4650
- Leibovich, S.  
Stability of density stratified rotating flows 7946
- Leicester, R. H.  
Finite deformations of shallow shells Point loading on hyperbolic paraboloidal shells 7708
- Leifman, L. Ya.  
A problem of allocation of resources in net programming 23  
Algorithm for an approximate solution of a certain problem of allocation of resources in net programming 786
- Leigh, D. C.  
Surface geometry of three-dimensional inviscid hypersonic flows 6271
- Leikin, A. S.  
Increasing the strength of machine parts by optimum stress distribution 2565
- Leimanis, E.  
The general problem of the motion of coupled rigid bodies about a fixed point 5840
- Leipholz, H.  
On the choice of the trial functions in the application of the method of Galerkin 778
- Leissa, A. W.  
Forced vibrations of Timoshenko beams with viscous damping 177
- Leith, C. E.  
See Canavan, G. H. 7146
- Leitinger, J. H.  
See Gray, R. L. 8233
- Leitmann, G.  
Problems in mechanics 2278  
See also Blaquiere, A. 2258
- Lejeune, M.  
See Jaumotte, A. L. 4624
- Leko, R. W.  
Transfer functions for radiator dynamics in the SNAP-8 system 4550
- Leko, T.  
Saint-Venant's principle and the mathematical theory of elasticity 9342
- Leksovskii, A. M.  
See Regel, V. R. 9088
- Lelyanov, S. P.  
Determination of curvilinear regression parameters by the mean square method 8335
- Lemaigen, J.  
Description of the main types of fuel cells 3633
- Lemaire, J.  
Influence of the temperature evolution velocity on the behavior of elastoviscoplastic solids 9329
- Lemaitre, J.  
See Valid, R. 885
- Le Maitre, J. F.  
Combined oscillations of systems by on-off 7531  
See also Paquet, J. G. 9233
- Le Marechal, T.  
A contribution to the experimental study of air flow within a bundle of tubes with heat transfer 541  
Fluid amplifier flow problems 3974
- Lemberg, E. D.  
See Dyatlovitskii, L. I. 7594
- Lemcke, B.  
Double-driver shock tube for shock-on-shock simulation 1934
- Lemcoe, M. M.  
Errors in high-temperature strain measurements 1742
- Lemieux, P. F.  
The laminar two-dimensional free jet of an incompressible pseudoplastic fluid 4312
- Lemneanu, N. I.  
See Ghia, V. V. 4720
- LeMoli, G.  
Construction of networks equivalent to pre-assigned flow-graphs 3938
- Le Nabour, M.  
High dilution ratio ejectors 419
- Lenander, C. J.  
Predictions of microwave breakdown in air from kinetic theory calculations 8030
- Leneman, O. A. Z.  
Correlation function and power spectrum of randomly shaped pulse trains 2237
- Lenshin, V. T.  
See Vorontsov, P. A. 8248
- Lenskii, M. F.  
Question of the synthesis of a plane kinematic pair with point rolling according to qualitative indices 339
- Lenzen, K. H.  
Analysis and interpretation of fatigue data 6945
- Leon, J.  
See Hetsroni, G. 6429
- Leonard, H. W.  
See Pinson, L. D. 6852
- Leonard, R. W.  
See Knudsen, V. O. 1359
- Leonard, T. A.  
Exploding wire system with "in vacuo" preparation of lithium wire 5625
- Leonhardt, F.  
On development of aerodynamically stable suspension bridges: Parts 1 and 2 9583
- Leonov, A. I.  
See Gorodtsov, V. A. 5881
- Leonov, M. Ya.  
Analytical investigation of the strain of semibrittle bodies 9331
- Leontev, A. I.  
Experimental study of flow patterns and temperature fields in horizontal free convection liquid layers 7241  
Free convection heat transfer in horizontal channels and over a horizontal surface 8070  
See also Kutateladze, S. S. 3706
- Leopold, P. M.  
See Chang, K. T. 6133
- Le Pichon, X.  
Deep-sea sediment velocity determination made while reflection profiling 9632
- Lepie, G.  
See Frewer, H. 4578
- Lepore, J. A.  
Dynamic stability of axially loaded columns subjected to stochastic excitations 3215
- Leppert, G.  
Laminar film condensation on surfaces normal to body or inertial forces 1243
- Leppington, F. G.  
On the scattering of short surface waves by a finite dock 8832  
On the short-wave asymptotic solution of a problem in acoustic radiation 9051
- Lequeux, J.  
Physics and evolution of galaxies 3804
- Leray, J.  
See Debeauvais, F. 5451  
Gramain, P. 7028
- Lerchenthal, C. H.  
Bonded sheet metal reinforcement for concrete slabs 1039
- Lerenya, I. D.  
On stability of a thick plate compressed on two sides 4101
- Le Roy, P.  
On some cases of mathematical impossibility of existence of certain stationary flows of a viscoelastic liquid 7926
- Lescarboua, J. A.  
The effect of eccentricity on the terminal velocity of the cylinder in a falling cylinder viscometer: Experimental verification for Newtonian fluids 1061
- Lescocoeur, M.  
Feed water suction: Cavitation under varying suction conditions 4452
- Leshchenko, V. M.  
Investigation of plastic strain of nonuniformly heated rotating disks 9092
- Leslie, D. C.  
The development of flashing flow from existing nucleation sites 7269
- Leslie, F. M.  
Some constitutive equations for liquid crystals 2579
- Lessen, M.  
Stability of a relativistic half-jet 1117  
Stability of pipe Poiseuille flow 1802  
Stability of relativistic magnetohydrodynamic shock waves 2056

- Lessen, M. (Continued)**  
 Stability of a relativistic magnetogasdynamics half-jet 2852  
 The structure of a weak shock wave undergoing reflection from a wall 5347  
 Stability of magnetohydrodynamic shock waves 5579  
*See also* Fox, J. A. 2685
- Lessing, H. C.**  
 The use of integral transforms in the estimation of time variable parameters 5767
- Letan, R.**  
 The mechanism of heat transfer in a spray column heat exchanger 8093
- Letov, A. M.**  
 Synthesis of a system for the optimum stabilization of a space station 2895
- Leu, K. -C.**  
*See* Harstead, G. A. 5959
- Levai, Z.**  
 Structure and analysis of planetary gear trains 7017
- Levchuk, E. F.**  
*See* Kilchevskii, N. A. 2284
- Levey, H. C.**  
 Series representations of Fourier integrals 4833
- Levi, I. I.**  
 An approximate method for calculating the flow at sudden expansions in the presence of a magnetic field 2057
- Levi, R.**  
 Evaluation of machine-tool dynamometer accuracy at the design state 5176
- Levin, G. M.**  
 Study of the efficiency and reliability of natural circulation loops with vaporization in an annulus 5505
- Levin, N. A.**  
*See* Golenko, D. I. 852
- Levin, O.**  
 On the optimization model of groundwater utilization 9978
- Levin, O. A.**  
 Moire method for investigating deformation fields during cyclic loading 4242
- Levin, V. A.**  
 Asymptotic laws of behavior of detonation waves 4652
- Levina, L. E.**  
*See* Karpov, V. I. 1174
- Levine, L. E.**  
 The expansion of a wedge of gas into a vacuum 9681
- Levine, L. S.**  
 Experimental investigations of normal ionizing shock waves 8144
- Levinson, M.**  
*See* Walter, W. W. 1652
- Levitskii, N. I.**  
 On the special properties of Lagrange's multipliers in the least-square synthesis of mechanisms 5252  
 The use of electronic digital computers in the synthesis of a spatial crank-connecting rod transmission mechanism 7021  
 Choice of coordinate axes and planes of projection in a three-dimensional four-bar mechanism 8712
- Levkovskii, Yu. L.**  
 Modeling of cavitation noise 1362
- Levoni, S.**  
 Reciprocal relations in magneto-thermoelasticity 9956  
 More on a question of reciprocal relations in magneto-thermoelasticity 9957
- Levy, M. J.**  
 Pressure attenuation in long rarefaction wave tubes 9775
- Levy, S.**  
 Railway overhead contact systems, catenary-pantograph dynamics for power collection at high speeds 5836
- Levy, T.**  
 Slow flow of a viscous conducting fluid about a spherical shell in the presence of a magnetic field 594
- Levyi, L. V.**  
*See* Tarakanov, R. Z. 5683
- Lewellen, W. S.**  
*See* Rott, N. 5294
- Lewillie, L.**  
 Equipment note: Telemetric measurement of the respiratory function 1445
- Lewin, L.**  
 The solution of singular integral equations over a multiple interval and applications to multiple diaphragms in rectangular waveguide 17
- Lewis, C. E., Jr.**  
*See* Swaroop, R. 7473
- Lewis, C. H.**  
*See* Kuby, W. C. 1347
- Lewis, D., III**  
*See* Dally, J. W. 9532
- Lewis, D. V.**  
 Heat transfer at the interface of stainless steel and aluminum: The influence of surface conditions on the directional effect 7227
- Lewis, D. W.**  
 Displacement and velocity kinematic synthesis 1765  
*See also* Tull, H. G., III 4296
- Lewis, E. V.**  
*See* Hoffman, D. 9588
- Lewis, J. E.**  
 Compressible boundary layer and its low-speed equivalent 4407
- Lewis, M. F.**  
 Attenuation of longitudinal ultrasonic waves in insulators at room temperature 7382
- Lewis, M. K.**  
*See* Jones, J. R. 8729  
 Jones, J. R. 8733
- Lewison, G.**  
 On the cushioning of water impact by entrapped air 8266
- Leyer, J. -C.**  
 The effect of periodic fluctuations on the structure and propagation of a combustion zone 2010  
*See also* Guerraud, C. 7362
- L'hermitte, J.**  
*See* Rata, J. M. 302  
 Chevalier, J. 4441
- Lhote, F.**  
*See* Laurent, F. 4861
- Li, C. C.**  
*See* Bose, N. K. 7547
- Li, S. -T.**  
*See* Russell, J. E. 121
- Li, T. -M.**  
*See* Hoare, D. E. 2821
- Li, T. Y.**  
 On asymptotic integration of binary boundary-layer equations 8795
- Liakopoulos, C.**  
*See* Theocaris, P. S. 5205
- Lianis, G.**  
*See* Goldberg, W. 4039
- Libby, P. A.**  
 Some similar laminar flows obtained by quasilinearization 4406  
*See also* Chen, K. K. 4402  
 Chen, K. K. 5374
- Liboff, R. L.**  
 Plasma virial and equations of state for a plasma 8135
- Librescu, L.**  
 Influence of geometrical and aerodynamic nonlinearities on the flutter of thin elastic orthotropic heterogeneous panels 3799  
 On the equations of the linear theory of anisotropic elastic plates 8475  
 Supersonic flutter of circular cylindrical heterogeneous orthotropic thin panels of finite length 9895
- Lichtenstein, L.**  
 Fundamentals of hydromechanics 3478
- Lick, W.**  
 Wave propagation in real gases 1901
- Lidrovich, V. B.**  
*See* Istratov, A. G. 6436
- Lidskii, E. A.**  
 Stability of motions of a system with random retardations 8351
- Lidwell, O. M.**  
 A rapid response radiometer for the estimation of mean radiant temperature in environmental studies 2805
- Lie, T. -J.**  
*See* Liboff, R. L. 8135
- Liebenberg, A. C.**  
 Some aspects of the structural design of tall buildings 4282
- Lieber, P.**  
*See* Braslau, D. 8401
- Lieberman, A.**  
 Automatic and remote monitoring of airborne particles 4732
- Liebig, S.**  
 On the estimation of building vibrations due to periodic impulsive excitation 4142

- Liebing, L. F. C.  
Measurement of ion velocity distributions in low-density plasma beams 9019
- Lieblein, S.  
See Stockman, N. O. 6485
- Liebowitz, H.  
Stress concentrations due to sharp notches 9535
- Lien, H.  
A review and proposition for high velocity wake turbulent transport study 8811  
See also Hoffert, M. I. 6473
- Lienhard, J. H.  
Effects of gravity and surface tension upon liquid jets leaving Poiseuille tubes 4340  
Interacting effects of geometry and gravity upon the extreme boiling heat fluxes 6418  
See also Chiu, W. S. 434
- Liepins, A. A.  
Digital computer simulation of railroad freight car rocking 5092  
Two-dimensional finite-difference equations for shallow spherical shells 9368
- Lietzke, A. F.  
See Gedeon, L. 9291
- Life, J. S.  
Response of the canine heart to thoracic impact during ventricular diastole and systole 2985  
Comparative responses of small and medium sized primates, both live and embalmed, to impact stress 3886
- Lifer, C. E.  
See Hwang, C. 5091
- Liggett, J. A.  
Mathematical flow determination in open channels 5276
- Lightfoot, E. N.  
See Ludviksson, V. 3512  
Ludviksson, V. 5299
- Lighthill, M. J.  
Pressure-forcing of tightly fitting pellets along fluid-filled elastic tubes 8215  
See also Hide, R. 3501
- Ligtenberg, F. K.  
Stability and plastic design: Part 1; Part 2 3199
- Likar, O.  
Bars of constant width and linearly varying thickness: Their deformation values 6752
- Likhovid, P. I.  
Building of a transitional process in a piece-wise linear system 169
- Likins, P. W.  
Use of synthetic modes in hybrid coordinate dynamic analysis 4914
- Liley, P. E.  
See Ho, C. Y. 6374
- Lilley, F. E. M.  
Elastic wave motion and a nonuniform magnetic field in electrical conductors 2442
- Lim, L. C.  
See Roderick, J. W. 2352
- Lim, Y. S.  
Asymptotic solutions of an optimal servo problem 3991
- Limb, M.  
See Kalisz, H. 6091
- Limberg, E. A.  
Experimental investigations of the oscillatory process of cylindrical shells excited by instantaneous liberation of energy 8861  
Screening of shells from the action of pulsed loads 9433
- Lin, C.-W.  
On the nonsymmetric vibrations of thin cylindrical shells with clamped-clamped edges 1673
- Lin, J.  
Equilibrium distribution of droplets in the theory of nucleation 3821
- Lin, S.  
See Zier, J. 5356  
Zier, J. 7988
- Lin, S. C.  
See Gibson, C. H. 8010
- Lin, S. P.  
Finite-amplitude stability of a parallel flow with a free surface 8837
- Lin, T. H.  
Elastoplastic analysis of indeterminate beams under reversed loadings 5214  
Latent elastic strain energy due to residual stresses in a plastically deformed polycrystal 7650
- Lind, N. C.  
Stress concentration of holes in pressurized cylindrical shells 870
- Lind, R. C.  
See Jaffe, N. A. 2654  
Wazzan, A. R. 4398
- Lindauer, G. C.  
Heat transfer in packed and fluidized beds by the method of cyclic temperature variations 1967
- Lindberg, G. M.  
The vibration of stepped cantilevered plates 937  
See also Olson, M. D. 7690
- Lindberg, H. E.  
See Anderson, D. L. 1658  
Vaughan, H. 4111
- Lindbergh, C.  
Finite, inelastic deformations of clamped shell membranes subjected to impulsive loadings 8481
- Lindblad, S.  
See Nordlund, B. 2106
- Lindblom, B. E.  
Vertical motion of spherical particles in fluids 7405
- Lindborg, U.  
Micro-facets of crack surfaces in metals 3336
- Lindemann, O. A.  
Radiation impedance of a rectangular piston at very low frequencies 6509
- Lindgren, E. R.  
Effects of dilute high molecular weight polymers on turbulent flows of water in very rough pipes 1064
- Lindgren, H.  
Hydrodynamic aspects of contra-rotating propellers 3606
- Lindh, D. V.  
The influence of weld defects on performance 9611
- Lindhard, J.  
Temperature in special relativity 2749
- Lindholm, U. S.  
See Francis, P. H. 5123
- Lindlauf, R. W.  
See Dorman, T. E. 4440
- Lindley, B. C.  
Status report on MHD electrical power generation 1307
- Lindorff, D. P.  
Control of nonlinear multivariable systems 5803
- Lindow, B.  
Similarity solution for a laminar, incompressible jet flowing along a curved surface 4363
- Lindow, R.  
An improved burner method for determining the laminar flame velocity of fuel gas/air mixtures 1256
- Lindsey, G. H.  
Triaxial fracture studies 7830
- Lines, D. J.  
Seal lubrication 4784
- Ling, C.-B.  
On stress-concentration factor in a notched strip 5868
- Ling, C. H.  
See Lee, S.-L. 5493
- Ling, F. F.  
See Chen, C. T. 6080
- Linkovsky, Z. B.  
See Krapivin, V. F. 3042
- Linning, D. L.  
Evaporating fluid flow in pipes: A theory for the prediction of phase velocity, pressure drop and critical outlet conditions for evaporating annular flow in pipes 570
- Linow, K.-J.  
See Glockner, G. 6223
- Linville, A. F.  
See Laster, S. J. 8239
- Lipnitskii, Yu. M.  
Theoretical investigation of unsteady supersonic flow around blunt bodies 5326
- Lipovtsev, Yu. V.  
See Grigoliuk, E. I. 7748
- Lippert, T. E.  
A study of the temperature profiles measured in the thermal sublayer of water, Freon 113, and methyl alcohol during pool boiling 7290
- Liptak, J. A.  
Welding dissimilar aluminum alloys 2567

- Liptak, L.  
Creep and transverse strain in concrete structures 5221
- Lira, F.  
See Lauterbach, R. 726
- Liron, N.  
See Friedmann, M. 7069
- Lis, J.  
Measurements of the thermal conductivity of thin films of magnetite 8895
- Lisgarten, N. D.  
See Blackman, M. 1949
- Lisovskii, A. S.  
Plane bending of thin-walled curved bars reinforced by longitudinal ribs 6755
- List, E. J.  
A two-dimensional sink in a density-stratified porous medium 4737  
An exact solution for a diffusive flow in a porous medium 6551
- List, R.  
Quasi-steady state icing and melting conditions and heat and mass transfer of spherical and spheroidal hailstones 1986
- Listengarten, B. A.  
See Kadyrov, Ya. B. 1498
- Litinskii, E. M.  
See Fedorov, V. K. 4516
- Litoshenko, A. K.  
Heat transfer in annular ducts during a laminar flow of water 5491
- Litov, Yu. N.  
See Vakulenko, A. A. 879
- Little, D. C.  
See Trammell, G. J. 1987
- Little, H. R.  
Effect of mass transfer on ramp-induced separation for a flat plate at Mach 20 5397
- Litton, E.  
The effect of differential settlement on a large, rigid, steel-framed, multistory building 4284
- Litvai, E.  
Approximate consideration of non-Newtonian fluid properties in designing machinery for the chemical industry 6220
- Litvinov, V. G.  
On the distribution of stresses and temperatures in polymer fibers during the process of their orientation 5645
- Litvinov, V. S.  
Effect of preliminary plastic deformation on the resistance of materials to the dynamic action of liquid lead 1739
- Litvinova, V. D.  
Twenty-four hour cycle of turbulence above a level locality 9133
- Litvin-Sedoy, M. Z.  
On the dynamics of a heavy gyroscope of variable size with a rectilinear motion of the point of support 6696
- Litwinsky, J.  
On a certain Markov model of colmatage-scouring phenomena: Part 2 9192
- Liu, B.  
See Franaszek, P. A. 811
- Liu, B. Y. H.  
On the theory of charging of aerosol particles in an electric field 4730
- Liu, C. S.  
Influence of dissociation of mass transfer cooling in a carbon dioxide-nitrogen binary system 5524
- Liu, C. Y.  
Plane Poiseuille flow of a rarefied gas 1859  
Evaluation of the separation properties of laminar boundary layers 5375  
Boundary effects in wake flow 7065  
See also Taylor, J. E. 3391  
Wazzan, A. R. 4398  
Sandborn, V. A. 7138
- Liu, D. T.  
See Lee, E. H. 6051
- Liu, H.  
Analysis of integrating-float flow measurement 3608
- Liu, H. W.  
See Lehr, K. R. 8634
- Liu, J. T. C.  
Flow induced by the impulsive motion of an infinite flat plate on a dusty gas 5399
- Liu, R. W.  
See Leake, R. J. 1542
- Liu, S. C.  
The spectrum of a simple nonlinear system 5751  
Earthquake response statistics of nonlinear systems 8702  
On intensity definitions of earthquakes 9592
- Liu, S. W.  
See Chung, P. M. 6273
- Liu, T. M.  
See Libby, P. A. 4406
- Liu, T. -Y.  
See Lessen, M. 1802
- Livshits, L. S.  
See Rakhmanov, A. S. 1005
- Liyelpeter, Ya. Ya.  
Motion of conducting bodies in a magnetic field 631
- Lloyd, P.  
See Byrne, R. J. 947
- Lo, C. C.  
Elastic contact of rough cylinders 7617
- Lo, C. F.  
See Conway, H. D. 4099
- Lo, K. S.  
Finite segment analysis of folded plates 9562
- Lobanov, A. I.  
Connected problems of thermoelasticity for thin plates 9951
- Lobanov, L. I.  
Connected thermal elasticity problems for thin plates 5640
- Lobanov, L. N.  
See Malashenko, S. V. 4719
- Lobastov, Yu. S.  
Experimental determination of electron concentrations and effective frequencies of electron collision with neutral particles in air, N<sub>2</sub>, O<sub>2</sub>, CO, argon and CO<sub>2</sub> behind shock waves 627  
See also Bazhenova, T. V. 3514
- Lobkova, N. A.  
Equations in the theory of thin inhomogeneous plates, using cylindrical coordinates 1640
- Locati, G.  
See Szilagyi, L. 1600
- Lochmann, M.  
Description of the dynamic behavior of a lead gyro in the phase plane 5843
- Lock, M. H.  
Transverse vibrations of a shallow spherical dome 941  
Experiments on the snapping of a shallow dome under a step pressure load 5069
- Lock, R. C.  
Theory of aerodynamic design for swept-winged aircraft at transonic and supersonic speeds 5421
- Lockett, F. J.  
Experimental characterization of nonlinear viscoelastic materials 5885
- Lockwood, F. C.  
Equilibrium-turbulent boundary layer prediction for a proposed Prandtl mixing length distribution 8804
- Lo Conte, U.  
Method for piston ring wear rate determination 9993
- Loeb, M.  
Impulse duration and temporary threshold shift 4813
- Loeber, J. F.  
Diffraction of antiplane shear waves by a finite crack 7798
- Logsdon, T. S.  
A modified Monte Carlo procedure 3010
- Loh, S. Y.  
See Johnson, W. 5131
- Lohner, K.  
The internal combustion engine: Vol. 6, Mixture formation and combustion in Otto cycle internal combustion engines 1262
- Loiseau, H.  
A technique for producing intense and short-lived heat fluxes 5515  
Measurement of the Young modulus and of the internal damping of materials as a function of temperature 5650  
Experimental study of single degree-of-freedom flutter in transonic flow 7335  
Experimental determination of the inertia constants of an airplane or of a missile 9026
- Lokoshchenko, A. M.  
Relaxation of stresses in a disk 4044  
Circular viscoelastic membrane under the action of uniform pressure 5917
- Lokshtanov, E. A.  
See Borisov, G. A. 490



- Lomakin, E. V.  
The effect of plastic instability at yield point on the propagation of a plastic zone in a thick-walled tube subjected to a dynamic load 7653
- Lomakin, V. A.  
Stress-strain relationships with non-linear deformation of orthotropic glass-reinforced plastics 109  
On elasticity problems for bodies with rapidly oscillating elastic properties 8402
- Lomax, H.  
On some numerical difficulties in integrating the equations for one-dimensional nonequilibrium nozzle flow 7119
- Lombard, C. F.  
See Olson, R. B. 1961
- Lomukhin, V. A.  
See Belyayev, V. Y. 2348
- Loncar, G.  
Analysis of longitudinal (hybrid) electromagnetic modes in a resonator with an azimuthal perturbation: Part I 4589
- Long, G. W.  
See Sridhar, R. 6085  
Hohn, R. E. 6086  
Sridhar, R. 6087
- Long, J. R.  
See Duff, R. E. 1926
- Long, L. T.  
See Sanford, A. R. 9118
- Long, V. H. F.  
An investigation aimed at improving the efficiency of percussive rock drilling 1703
- Longhurst, G. R.  
See Watkins, R. K. 9488
- Longuet-Higgins, M. S.  
On the trapping of waves along a discontinuity of depth in a rotating ocean 4760  
Double Kelvin waves with continuous depth profiles 5690  
Action of a variable stress at the surface of water waves 9768
- Loo, S. G.  
Spectral analysis of randomly-gated random signals 817  
Stability of linear stationary systems with time delay 6649
- Loomis, W. R.  
See Johnson, R. L. 1780
- Looney, C. T. G.  
See Heins, C. P., Jr. 331  
Heins, C. P., Jr. 7848
- Loos, W.  
Practical calculation of the lateral instability of I beams subjected to terminal moments, distributed load and axial load 5042
- Lopato, G. A.  
Curvature of the lateral surfaces of circular teeth of conical wheels 345
- Loper, C. R., Jr.  
The effect of heat-affected zone structure on the structure of the weld fusion zone 9610
- Loper, D. E.  
Analysis of confined magnetohydrodynamic vortex flows 8989
- Lopez, A. M.  
Tuning controllers with error-integral criteria 2235
- Lopez, L. A.  
See Ang, A. H. -S. 149
- Lorch, S.  
On the determination of density changes and their distribution under the driving of probes into soils 8579
- Lord, R. G.  
An approximate method of calculating transition regime heat transfer and shear 5369
- Lorenz-Meyer, W.  
See Ludwig, H. 8882
- Losev, S. A.  
Performance of segmental form milling cutters 268
- Loske, K.  
Results using a mathematical hot blast stove model 8962
- Loss, F. J.  
Dynamic tear test definition of the temperature transition from linear elastic to gross strain fracture conditions 8615  
See also Hawthorne, J. R. 6145
- Lotsch, K.  
Fatigue resistance under cyclic loading of reinforced concrete girders 8689
- Lou, Y. C.  
See Stanisic, M. M. 4008
- Love, T. J.  
See Stockham, L. W. 4530
- Lovelace, J. F.  
Ultrasonic theory applied to the automatic inspection of welds 4253
- Lovell, E. G.  
See McIvor, I. K. 7786
- Lovell, J. D.  
See Carterette, E. C. 10001
- Lovie, P. M.  
Stability of members in dome structures 3409
- Low, A. H.  
Gravity effects in the initial value problems of water wave theory 1149
- Lowe, J., III  
Controlled gradient consolidation test 7802
- Lowen, G.  
A graphical method for the determination of angular accelerations in four-linked spatial mechanisms 8722
- Lowengrub, M.  
On two coplanar Griffith cracks in an infinite elastic medium 1581  
Two coplanar Griffith cracks in an infinitely long elastic strip 7607
- Lowery, R. L.  
See Whitehouse, G. D. 5107
- Lowson, M. V.  
Visualization of noise from cold supersonic jets 4700
- Reduction of compressor noise radiation 9057
- Lozhkin, V. N.  
See Kosmodamianskii, A. S. 1571
- Lozupone, V.  
Diffusion of vorticity in a fluid internally bounded by a cylinder impulsively rotated 9645
- Lu, L. -W.  
Ultimate strength of laterally loaded columns 3197  
See also Yarmici, E. 3405
- Lu, P. C.  
Magnetohydrodynamic gravity: Capillary waves in a liquid film 604
- Lu, S. H.  
See Chang, L. K. 1373
- Lu, S. Y.  
See Sun, C. L. 909
- Lubard, S.  
Two layer ablation at an axisymmetric stagnation point 8100  
The numerical solution of boundary-layer problems 8796
- Lubbig, H.  
A noncommutative operator calculus and its application to differential equations of physics 7499
- Lubin, M. J.  
Theoretical considerations on precursor waves in electromagnetically driven shock tubes 1178
- Lubman, D.  
Fluctuations of sound with position in a reverberant room 9059
- Lubman, N. M.  
See Kusakov, M. M. 1794
- Lucaccini, L.  
Evaluation of the AIPR pneumatic prosthesis 6592
- Lucas, D. B.  
See Gregersen, G. G. 9156
- Lucas, R. A.  
A quasi-static thermoelastic analysis of a propagating crack 7393
- Lucassen, J.  
Longitudinal capillary waves: Part 1, Theory; Part 2, Experiments 6338
- Luccio, F.  
See Grasselli, A. 9241
- Lucheta, R. A.  
Influence of Lorentz forces on flame-holding 580
- Luchsinger, E. B.  
See Oldham, K. B. 3642
- Lucht, R. F.  
Establishment of objective criteria reflecting subjective response to roller-bearing noise 2912
- Lucius, M.  
See Barriol, R. 5376
- Lucy, J.  
Calculating the hydrodynamic bearing strength of extremely wide friction bearings with reference to pivot swing 739

- Ludeke, C. A.  
The generalized duffing equation with large damping 5753
- Ludewig, H.  
Vibration tests on turbine blades of exhaust gas turbochargers 4129
- Ludford, G. S. S.  
See Fan, D. N. 4610  
Boger, R. C. 5563  
Hunt, J. C. R. 6455  
Fan, D. N. 6476  
Boger, R. C. 9864
- Ludlam, W. M.  
See Giglio, E. J. 7380
- Ludviksson, V.  
Hydrodynamic stability of Marangoni films 3512  
Deformation of advancing menisci 5299
- Ludwig, H.  
The transonic wind tunnel of the Aerodynamic Institute, Gottingen (AVA) 8882
- Ludwig, C. B.  
See Boynton, F. P. 1980
- Ludwig, D.  
Propagation of singularities along characteristics with nonuniform multiplicity 2183
- Ludwig, L. P.  
See Johnson, R. L. 1780  
Johnson, R. L. 7180  
Zuk, J. 9660
- Luecke, R. H.  
Analysis of optimal composite feedback-feedforward control 2222
- Luenberger, D. G.  
Canonical forms for linear multi-variable systems 5815
- Luers, J.  
On optimum methods for obtaining with data from balloon sensors 33
- Luganskaia, I. B.  
See Barantsev, R. G. 6282
- Lugosi, L.  
Electrohydraulic servomechanisms 53
- Lugovoi, V. N.  
Propagation of wave beams in nonlinear media 8565
- Lugt, H. J.  
Decay of a discontinuity line in a viscous fluid 3499
- Luh, J. Y. S.  
Time-optimal control of a bounded phase-coordinate process: Part 2, High-order systems with multiple control inputs 832  
Optimal controller design for minimum trajectory sensitivity 4897
- Luidens, R. W.  
An estimate of the supersonic flow field about an axisymmetric body with an  $N$ -wave pressure trace 2623
- Luik, R.  
See Melosh, R. J. 6167
- Luikov, A. V.  
Heat transfer bibliography: Russian works 1247  
Heat transfer bibliography: Russian works 8904
- Luini, L. A.  
See Lovelace, J. F. 4253
- Luiz, A. M.  
Determination of drag force on oblate spheroidal bubbles 6232
- Luk, W. K.  
The mechanics of symmetrical Vee form tool cutting 9509
- Lukas, J. S.  
A preliminary study of the awakening and startle effects of simulated sonic booms 668
- Lukasiewicz, S.  
On the technical theory of non-shallow shells 5011  
Concentrated loads in shells 9364
- Lukichev, D. M.  
Synthesis of hinged four-bar mechanisms using an electronic computer 349
- Lukin, L.  
Methods for studying energy costs and energy flow during human locomotion 3889
- Lukyanov, V. S.  
See Dunin-Barkovskii, I. V. 3884
- Lun, E. I.  
Simplification of the fundamental equations of the theory of Timoshenko-type shells 136
- Lund, G. R.  
See Urlick, R. J. 9065
- Lund, J. W.  
Calculations and experiments on the unbalance response of a flexible rotor 182
- Lund, S.  
See Moe, J. 6984
- Lundell, J. H.  
Performance of charring ablative materials in the diffusion-controlled surface combustion regime 2001
- Lundgren, T. S.  
See Haight, C. H. 7105
- Lundin, C. D.  
Very-short-time, very-high-temperature creep rupture of type 347 stainless steel and correlation of data 9519
- Lundqvist, E.  
See Kreiss, H. -O. 4832
- Lundstrom, E.  
See Kamel, M. M. 509
- Lunev, V. V.  
Hypersonic flow about blunt cones considering physico-chemical equilibrium transformations 7976
- Lunkevich, V. A.  
On the conditions for a center 6607
- Lunts, Ya. L.  
See Budnyanskii, I. M. 78
- Lupattelli, C.  
Mathematical models and performances of digital control systems 3055
- Lure, K. A.  
On a method of derivation of Bellman equation 4908
- Lurye, J.  
See Kotik, J. 5704
- Lushitskii, Yu. V.  
Thermal waves in a rod in the presence of thermal intake to the lateral surface 9087
- Lutes, L. D.  
See Iwan, W. D. 950
- Lutomirski, R. F.  
A model for the generation of magnetohydrodynamic waves by high-altitude nuclear bursts 7312
- Lutz, L. A.  
Mechanics of bond and slip of deformed bars in concrete 1037
- Lutz, M. A.  
Radiation and its effect on the non-equilibrium properties of a seeded plasma 1297
- Lutz, O.  
A historical review of development in propellants and materials for rocket engines 3748
- Lutzky, M.  
Shock propagation in spherically symmetric exponential atmospheres 4650
- Luu, T. S.  
Research on the optimal vortex distribution over the span of a supercavitating hydrofoil acting near the free surface 3507
- Lux, B.  
See Kurz, W. 9069
- Luxmoore, A.  
Anti-parallax device for observation of moire fringes 3369  
See also Holister, G. S. 2508
- Luxton, R. E.  
The calculation of heat transfer coefficients from skin friction coefficients in the compressible laminar boundary layer on an airfoil 7231
- Luyben, W. L.  
Nonlinear feedforward control of chemical reactors 3063
- Luzhin, O. V.  
Some questions of the dynamics of a closed sphere 7772
- Lyakhov, A. B.  
See Panichkin, I. A. 515
- Lyakhovskii, A. V.  
Intrinsic temperature errors in external gages of process control instruments 8898
- Lyakhovskii, I. D.  
Choking of supersonic nozzles in the presence of turbine moving blades 6349
- Lyamshev, L. M.  
Calculation of the sound radiation from a cylindrical shell in a flow field of a point source over an elastic plate in a moving homogeneous medium 6518  
Scattering of sound by a semi-infinite elastic tube in a moving medium 7375
- Lyapunov, A. M.  
Stability of motion 6870

- Lyapunov, V. T.  
Flexural wave propagation in a liquid-loaded plate with an obstruction 9783
- Lyashenko, V. F.  
Stability of a horizontal gyrocompass 4918
- Lykoudis, P. S.  
Magneto-fluid-mechanic channel flow: Part 2, Theory 8990  
*See also* Brouillette, E. C. 4583  
Papailiou, D. D. 7314
- Lykov, A. V.  
Mass and heat transfer in building materials 6554
- Lyman, J.  
*See* Lucaccini, L. 6592
- Lynam, C.  
*See* Rothwell, P. 8252
- Lynch, J. H.  
Two new theorems in heat conduction 1956
- Lyness, J. N.  
*See* Smith, W. E. 9209
- Lynn, W. R.  
*See* Shane, R. M. 7932
- Lynnworth, L. C.  
Sound ways to measure temperature 6378
- Lyon, D. N.  
Low temperature thermal conductivities of two high compressive strength materials 4718
- Lyon, D. R.  
*See* Kosky, P. G. 4537
- Lyon, R. H.  
Fluid-loading effects on vibrating structures 7177
- Lysanov, Yu. P.  
Time fluctuations of sound signals scattered by the ocean bottom  
Influence of inhomogeneity of the medium on wave scattering by an uneven surface 4683  
*See also* Zhitkovskii, Yu. Yu. 1363
- Lytkin, V. A.  
*See* Dranovskii, A. N. 3179
- Lyubchik, G. N.  
*See* Bannikov, A. I. 4458
- Lyubimov, V. M.  
Axisymmetric vibrations of a gas in a cylindrical cavity with an elastic end wall 2722
- Lyuks, E. I.  
Relation between the energy of a surface wave and the parameters of an explosion in air: Comparison of theoretical and experimental results 2906
- Lyutomskii, V. A.  
*See* Brodskii, V. B. 1311
- Lyzhin, O. V.  
Throttle devices in a compressible gas flow 2634
- Ma, J. T.  
*See* Brown, C. J. 5824
- Maahs, H. G.  
Transient natural-convection heat transfer in a horizontal cylinder 2785
- Mabey, D. G.  
Measurements of wing buffeting on a scimitar model 2707  
The longitudinal characteristics of three slender "mild ogee" wings at Mach numbers from 0.4 to 2.0 5409
- Mabie, H. H.  
Transverse vibrations of tapered cantilever beams with end support 4127
- Mabuchi, I.  
Studies on the convective heat transfer from a rotating disk: Part 3, Heat and mass transfer in a laminar flow about a rotating disk with suction or injection in the axial stream 8947  
Studies on the convective heat transfer from a rotating disk: Part 4, Laminar heat transfer from a disk with a step-wise discontinuity in surface temperature, rotating in uniform forced stream 8948
- Macagno, E. O.  
Establishment of rotational Couette flow with non-Newtonian viscosity 7928
- Macagno, M.  
A comparison of three methods for computing the added mass of ship sections 8264
- Macak, K.  
*See* Kolnik, S. 6045
- Macat, J.  
Working measurement of the accuracy of multipliers of analog computers 1476
- MacDonald, N. J.  
The dependence of the motion of cyclonic and anticyclonic vortices on their size 4763
- Maceri, F.  
On the torsion of thin-walled multi-cell sections 1583
- Macey, J. P.  
Instability phenomenon associated with an enclosed rotating disk 9649
- MacFarlane, A. G. J.  
Use of moving frames in the representation of nonlinear and non-planar state-space flows 3905  
Generalized block diagrams 4906
- Machida, S.  
On the motion of the shore hammer 1750
- Maciag, E.  
Forced harmonic vibrations of beams and plane grids with concentrated masses 932  
Some problems of dynamically loaded beams of rigid plastic material sensitive to rate of deformation 3269
- Macinante, J. A.  
The dynamic behavior of a large steerable radio telescope 944
- Mack, L. R.  
Natural convection between concentric spheres at low Rayleigh numbers 3676  
Natural convection between horizontal concentric cylinders for low Rayleigh numbers 6400
- Oscillations of a circular membrane of a nonlinear elastic foundation 8532
- Mack, R. J.  
A numerical method for evaluation and utilization of supersonic nacelle-wing interference 7159  
*See also* Morris, O. A. 3568
- Mackenzie, A. C.  
On the use of a single uniaxial test to estimate deformation rates in some structures undergoing creep 4275
- MacKenzie, K. R.  
*See* DeGroot, J. S. 1296
- Mackie, A. G.  
The water entry problem 8751
- Mackie, W. W.  
*See* Fairbairn, J. 112
- Mackiewicz, A.  
*See* Kukulski, W. 3378
- Mackinnon, R. F.  
*See* Warren, F. W. G. 4427
- Mackrodt, P. A.  
Spiral flow in the cylindrical annulus behind guide vanes 2584
- MacLatchy, C. S.  
*See* Magarvey, R. H. 2612
- Maclean, W. M.  
*See* Lewison, G. 8266
- MacLeod, I.  
*See* Johnson, W. 8611
- MacPherson, A. K.  
A critique of spinning detonation 4651  
*See also* Henderson, L. F. 470
- MacPherson, J. I.  
An improved theoretical model for the ground distribution of water released from a fire-bomber 386
- Macquart, B.  
Tables and momograms for metal construction: Vol. 2, 2nd edition 1612
- Macvean, D. B.  
The elementary worth in a continuum and the order of stress and strain tensors 4015
- Madayag, A. F.  
Metal fatigue: Theory and design 6943
- Madden, R.  
Hypervelocity impact analysis by the method of characteristics 6899
- Madedor, A. O.  
*See* Barden, L. 8581
- Madej, J.  
Changes in volume of dry sand sample during preparation for shearing in triaxial apparatus 5161
- Madejski, J.  
Thermodynamics of ideal multi-atomic gases in local nonequilibrium 9799
- Madinaveitia, M.  
Joints between precast elements 3397
- Maeda, H.  
On the heaving motion of circular peripheral jet ground effect machines 640

M

- Maeda, T.**  
Fundamental studies of turbulent boundary layers with injection or suction through porous wall: Part 1, Analysis of turbulent boundary layers on flat plate with injection 9715
- Maeda, Y.**  
Ultimate strength of welded steel box columns 5047
- Maeva, C. V.**  
On the Earth's thermal history 1388
- Maizawa, S.**  
Perfect Fourier series solution for subharmonic vibration of piecewise-linear system: Part 2 6807
- Magalif, V. Ya.**  
Calculating the flexibility of curved tubes on bending 5947
- Magarvey, R. H.**  
Mass transfer and wake phenomena 2612
- Magdalin, C.**  
*See Skoglund, H. N.* 9103
- Magiros, D. G.**  
Attitude stability of a spherical satellite 7357
- Maglieri, D. J.**  
Variability in sonic-boom signatures measured along an 8000-foot linear array 8175
- Magnien, C.**  
Analysis and design of a compressor 4249
- Magomedov, K. M.**  
*See Lunev, V. Y.* 7976
- Magrab, E. B.**  
Vibration of a rectangular plate carrying a concentrated mass 936
- Magrath, H. A.**  
*See Kolb, A. W.* 4702
- Magrini, U.**  
*See Faggiani, D.* 7222
- Mahalanabis, R. K.**  
On temperature changes due to application of impulsive pressure on the surface of a spherical cavity  
Thermal stresses in an elastic cylinder 4706
- Mahalingam, S.**  
On the treatment of residuals in vibration analysis 6793  
Coupled vibration of geared systems 6857
- Mahler, E. G.**  
Stability of a fluid layer with time-dependent density gradients 6328
- Mahler, K.**  
Applications of a theorem by A. B. Shidlovski 2198
- Mahmud, M. C.**  
Dynamics of machine tools 206
- Mahoney, J. B.**  
*See Salerno, V. L.* 5850
- Mahony, J. J.**  
*See Levey, H. C.* 4833
- Maidanik, G.**  
Flush-mounted pressure transducer systems as spatial and spectral filters 1898  
Domed sonar system 9064
- Maidment, D.**  
*See Jones, W. M.* 7194
- Maier, G.**  
On the statics of tensestructures 337  
Extremum theorems for the analysis of elastoplastic structures containing unstable elements 3144  
A quadratic programming approach for certain classes of nonlinear structural problems 4257  
*See also Palmer, A. C.* 1606
- Maier, P.**  
The length of turbulent swirling flames burning in free surroundings 4562
- Maikapar, G. I.**  
Choice of the form of wing for hypersonic velocities 3564  
Vortices behind the bow shock wave 9677
- Mainwaring, F. J.**  
*See Cohen, M. I.* 9614
- Maity, M.**  
Propagation of Rayleigh waves due to a time-dependent surface pressure over a homogeneous elastic half-space 9121
- Maizel, Yu. M.**  
A new method of determining dynamic reactions in application to the analysis of free longitudinal and torsional vibrations 6798
- Maizieres, C.**  
*See Laurent, F.* 4861
- Majhi, S. N.**  
*See Nigam, S. D.* 5293
- Majid, K. I.**  
The computer analysis of large multi-story framed structures 6180
- Major, A.**  
Measurement and evaluation of dynamic effects and vibrations of constructions 942
- Major, M. W.**  
*See Wideman, C. J.* 2960
- Majumdar, A. J.**  
Fracture studies in glass-reinforced gypsum plaster using the scanning electron microscope 6122
- Majumdar, S. R.**  
On the slow motion of viscous liquid in space between two eccentric spheres 9637
- Majumder, N. C.**  
*See Bandyopadhyay, K. K.* 3453
- Mak, M. -K.**  
Laterally driven stochastic motions in the tropics 9125
- Makarov, Yu. V.**  
Investigation of the structure of the luminescence front in an electromagnetic shock tube 636
- Makaryavichyus, V.**  
*See Zhukauskas, A.* 1991  
*See Gyadgaudatte, E. A.* 436
- Makeev, N. N.**  
On the theory of interaction of simple waves 3517
- Makhankov, V. G.**  
On the nonlinear theory of hydrodynamical beam instability 1282
- Nonlinear interaction of Langmuir waves and ion-ion impacts in turbulent plasma 9877
- Makhnenko, V. I.**  
Problem of thermoplasticity for shallow shells of rotation 5644
- Makhovikov, V. I.**  
New method of solution of temperature problems for shells 8047
- Makhutov, N. A.**  
Kinetics of strain and failure in the case of cyclic softening 273  
*See also Levin, O. A.* 4242
- Maki, H.**  
*See Mori, Y.* 6351
- Maki, T.**  
*See Iguchi, A.* 1249  
*See Iguchi, A.* 1999
- Makino, M.**  
*See Kawamura, R.* 1842
- Makinson, K. R.**  
The use of a diffraction grating as the rubbing surface in the study of the frictional properties of wool fibers 746
- Makomaski, A. H.**  
An alternative method of calculating the motion behind spherical detonation waves 4563
- Makowski, J.**  
Radiometrical methods for seepage control of hydraulic structures and their environments 8227
- Makowski, Z.**  
*See Kaliski, S.* 232
- Maksimov, A. M.**  
*See Makarov, Yu. V.* 636
- Maksimov, G. M.**  
Solution of problems of the theory of elasticity in displacements 91
- Maksimov, L. M.**  
State standard of a unit of force 3376
- Mal, A. K.**  
A differential equation for surface waves in layers with varying thickness 233  
Diffraction of elastic waves by a penny-shaped crack 5114  
Dynamic stress intensity factor for an axisymmetric loading of the penny-shaped crack 6036  
Dynamic stress intensity factor for a nonaxisymmetric loading of the penny-shaped crack 6885
- Malaczynski, G.**  
Double electrostatic probes for flame diagnostics 7321
- Malaiu, E.**  
*See Librescu, L.* 9895
- Malakonda Reddy, V.**  
A new method of determining deflections of continuous beams 5215
- Malashenko, S. V.**  
A new method of measuring thermal deformations 4719
- Malcolm, D. G.**  
*See Hunt, J. C. R.* 3756



- Malcom, H. A.  
See Lock, M. H. 941
- Male, A. T.  
See Hinsley, C. F. 1423
- Male, J. C.  
See Edmond, J. T. 4497
- Malik, G. N.  
See Polyakov, L. M. 2521
- Malin, S. R. C.  
Amplitude error in the  $L$  vector from noisy data 8241  
The effect of the sea on lunar variations of the vertical component of the geomagnetic field 8256
- Malinovsky, I. A.  
See Ishchenko, I. I. 1020
- Malkina, R. L.  
Free oscillations of shells in the form of shallow hyperbolic paraboloids 4134
- Malkus, W. V. R.  
Hydromagnetic planetary waves 4591
- Mallett, R. H.  
Finite element analysis of nonlinear structures 7870  
MAGIC: An automated general purpose system for structural analysis: Vol. 1, Engineer's manual 9215
- Malliaris, A. C.  
Investigation of acceleration mechanisms in MPD accelerators 1290  
Oscillations in an MPD accelerator 2839
- Mallick, S. K.  
See Ramamurthy, L. N. 8691
- Mallik, B. K.  
Rigidity of lathe beds by model analysis 350
- Malloch, I. D.  
See Zienkiewicz, H. K. 3519
- Malmberg, J. H.  
See Wharton, C. B. 8126
- Malmeister, A. K.  
Strength of rigid polymers 3137  
Basis of the local strains theory: Part 1 4057
- Malov, N. N.  
Introduction to the theory of oscillations 4117
- Malozemov, V. V.  
See Bykov, L. T. 1992
- Malvern, L. E.  
See Efron, L. 8573
- Malyshch, B. M.  
Experimental verification of Saint-Venant's theory 955
- Malyshch, Yu. V.  
A numerical method of integrating a first-order differential equation 7515
- Malyutin, I. S.  
See Gruskov, A. D. 5021
- Mamedov, A. B.  
Transverse flexure of a compound prismatic rod 123  
Case of the unrestricted torsion of a compound prismatic bar 4987
- Mamedov, I. S.  
Stressed state of an ellipsoidal shell of revolution in the case of large strains 1649
- Mamykin, E. T.  
See Artamonov, A. Ya. 9992
- Manabe, S.  
Thermal equilibrium of the atmosphere with a given distribution of relative humidity 2152
- Manacorda, L.  
See Laratta, A. 6193
- Manashkin, L. A.  
See Itin, M. E. 7850
- Mancuso, R. L.  
A numerical procedure for computing fields of stream function and velocity potential 4762
- Mandal, K. K.  
Magnetohydrodynamic flow through a rectangular duct due to a periodic pressure gradient 5559
- Mandel, J.  
Application of thermodynamics to viscoelastic media with zero or limited instantaneous elasticity 7633  
Application of thermodynamics to media where the instantaneous deformations are elastic or null 8420
- Mandelbaum, M.  
See Avi-Itzhak, B. 9202
- Mandrovsky-Sokolov, B. Yu.  
On one method of determining the spectral density in sampled-data system with some samplers 1497
- Manea, V.  
Considerations on the nonlinear theory of thin elastic plane plates without using the Love-Kirchhoff hypothesis 154
- Manekar, A. M.  
See Arora, S. K. 9114
- Manfre, G.  
The rapid formation of drops of viscous liquids 2597
- Mangeney-Ghertzman, L.  
See Chapront, J. 643
- Mangeron, D.  
See Chaleat, R. 9406
- Mangold, G.  
Constraint-pressure gas turbine in connection with a first stage blow-down turbine 4486
- Mangulis, V.  
Reception by an infinite array of pistons and reflection by an infinite plane with mixed impedances 4675
- Manheimer-Timnat, Y.  
See Peleg, I. 2017  
Chervinsky, A. 2822
- Mani, R.  
Quasi two-dimensional flows through a cascade 1914
- Mani, R. V. S.  
See Goren, S. L. 5520
- Maniar, N. M.  
Bending moment distribution in a Mariner cargo ship model in regular and irregular waves of extreme steepness 4287
- Manik, J. J.  
See Upit, G. P. 5712
- Manitt, P. J.  
See Burgreen, D. 9089
- Mann, H.  
Introduction to automatic control 9229
- Mann, J. Y.  
Fatigue of materials: An introductory text 1008
- Mann, R. K.  
See Stuart, I. M. 8435
- Mann, R. W.  
See Woods, W. A. 9789
- Manna, F.  
On monostressed profiled membrane shells 2355  
Formulating simple processes of plastic bending 4212
- Manning, J. R.  
Computerized method of characteristics calculations for unsteady pneumatic line flows 1900
- Manning, T. A.  
See Weaver, W., Jr. 7899
- Manohar, R.  
See Koneru, S. R. 8732
- Manolescu, N. I.  
Structural and kinematic synthesis of plane driving-mechanisms with multiple joints and two degrees of mobility: "total"  $M_3 = 2$  and "partial"  $M_3^p = 2$  1789  
Structural synthesis of plane kinematic chains with multiple joints and five degrees of freedom: "total"  $L_3 = 5$ , "partial"  $L_3^p = 5$  and "fractional"  $L_3^f = 5$  2555  
For a unified point of view in the study of the structural analysis of kinematic chains and mechanisms 7022
- Manson, N.  
See Brossard, J. 7296
- Manson, S. S.  
A simple procedure for estimating high-temperature low-cycle fatigue 3338
- Mansouri, A. H.  
See Chinn, J. 9587
- Mansurova, N. D.  
See Yaroshevich, M. I. 5685
- Mantei, C. L.  
See Phillips, H. B. 8654
- Mantero, G.  
See Caligiuri, G. P. 851
- Manuel, A. R.  
Water hammer 8855
- Manuel, F. S.  
Flexible bars subjected to arbitrary discrete loads and boundary conditions 9339
- Manza, V. P.  
See Binkevich, E. V. 9377
- Marangoni, R. D.  
Effect of nonhomogeneity on the transverse vibrational frequency of uniform beams 6813  
See also Jamison, C. E. 751
- Marcal, P. V.  
See Mallett, R. H. 7870

- March, C. N.  
See Dowson, D. 8286
- Marchal, C.  
Three-dimensional generalization and optimality study of Lawden's intermediate thrust arcs in a Newtonian force field 4898  
Optimization of the extra-atmospheric part of the ascending trajectory to an orbit: Part 1, Elliptic and open orientation case 9033
- Marchal, M.  
Calculating the water hammer in storage pump installations with electronic digital computers 8856
- Marchal, R.  
Gas turbines with pulsating combustion chambers 6441
- Marchelek, K.  
Torsional rigidity of machine tool drives 5256
- Marchenko, Yu. I.  
Mutual synchronization of self-oscillatory systems taking the wave connections into account 167
- Marchesini, G.  
On a bounded input-bounded output sufficient condition for nonlinear systems 806  
On the boundedness of responses of a class of nonlinear control systems 6657
- Marchi, E.  
Elastic vibrations in the crowns of thin plates: Part I 3237
- Marcinkowski, J.  
The dynamic of heat exchange in ventilated compartments 5472
- Marcou, C.  
Experimental study of the generation of complex waves in laboratory by a rotating paddle 478  
Experimental study of the generation of waves by translating paddle 1160  
See also Guerreiro, J. 1159
- Marcuk, G. I.  
Some application of splitting-up methods to the solution of mathematical physics problems 4853
- Marculescu, I.  
See Spataru, A. 7039
- Mardonov, B.  
A procedure of treating acceleration oscillograms for a point in an elastic bar during impact on the surface of a continuous medium 3274
- Marec, J.-P.  
Optimal impulsive transfers between quasi-circular, noncoplanar, close orbits 6495
- Marechal, J.  
Anisotropy of a grid turbulence deformed by a homogeneous velocity field 459  
Experimental device for the study of the plane deformation of homogeneous turbulence 460
- Margason, R. J.  
The path of a jet directed at large angles to a subsonic free stream 1850  
Aerodynamic characteristics of twin-propeller deflected-slipstream STOL airplane model with boundary-layer control on inverted V-tail 6486  
Aerodynamic characteristics of a five-jet VTOL configuration in the transition speed range 7345
- Margnac, A.  
See Lebreton, J.-C. 9139
- Margolin, V. M.  
See Gorbunov, G. P. 4186
- Margrave, D.  
See Andrade, E. N. da C. 3132
- Marguerre, K.  
Technical mechanics, Part 3: Kinetic 6692
- Marguet, R.  
Design and flight tests of a Mach-number-5 experimental ramjet 2836
- Margulova, T. Kh.  
See Styrikovich, M. A. 5510
- Maria-Sube, R.  
Calculation by electric analogy of the axisymmetric rotational and incompressible flow around a ducted propeller with variable circulation 7063
- Marin, Gh.  
See Constantinescu, V. N. 4792
- Marin, J.  
See Miller, W. R. 6957
- Marinescu, Al.  
On rocket vibrations 2402
- Marino, P. J.  
On the synthesis of insensitive linear feedback control systems 1485
- Marinov, R.  
See Avram, C. 3404  
Avram, C. 6130
- Maris, N. C.  
The choice of control valve with respect to its static gain 3463
- Marjamov, A. N.  
The calculation of impact of metallic bodies on the basis of the compressible fluid model 1705
- Mark, R.  
See Riera, J. D. 7841  
Takahashi, S. K. 7843
- Mark, R. E.  
Solid mechanics and crystal physics as tools for cellulose structure investigation 9317
- Markarian, E. M.  
See Meschian, S. R. 982
- Markeev, A. P.  
The rotational motion of a dynamically symmetric satellite in an elliptical orbit 4634
- Markland, C. A.  
See Noton, A. R. M. 3979
- Markman, Ya. B.  
Axisymmetric strain of a circular two-layer plate with partial rod connections 5025
- Markos, A. T.  
See Armstrong, E. S. 2899
- Markov, A. I.  
Allowance for loading sequence and scale factor in estimating the strength of brittle bodies under simultaneous compression and tension 6104
- Markovets, M. P.  
Relationship between creep characteristics obtained with different deformation methods 3133
- Markovitz, H.  
The emergence of rheology 3433
- Markovska, O. V.  
See Fleishman, N. P. 8476
- Markovskaya, E. V.  
Action of concentrated loads on circular plates with reinforced edges 899
- Markshaitis, D. Ch.  
Methods of calculating the kinematic parameters of some mechanisms with interrupted rotation 5261  
See also Klyuchininkas, A. Yu. 4673
- Markstein, G. H.  
Heterogeneous reaction processes in metal combustion 6438
- Markus, L.  
Harmonic analysis of planar mechanisms: Kinematics 7023
- Markus, M.  
Three-position time-optimum operation (bang-bang-type) servomechanism 3976
- Markus, S.  
Beam flexural vibration damping by the aid of viscoelastic damping layers 930
- Marlin, J. A.  
Periodic motions of coupled simple pendulums with periodic disturbances 6801
- Marloff, R. H.  
Three-dimensional photoelastic analysis of a fiber-reinforced composite model 8648
- Marmorshteyn, L. M.  
See Volarovich, M. P. 9108
- Maroli, C.  
See Crescentini, A. A. 7326
- Marris, A. W.  
Advanced dynamics 858  
Generalized circulation-preserving flows 1807  
Vector fields of solenoidal vector-line rotation 2184
- Marro, P.  
Influence of retarded elasticity on the interactions in a solid of composite cross section 5915
- Marrucci, G.  
Significance of the Deborah number in steady flows 2581
- Marsch, J. E.  
See Zoss, L. M. 3957
- Marschall, E.  
Heat transfer of a condensing vapor in the presence of gases 6419
- Marsden, D. G. H.  
Medium-sensitivity microbalances for measuring forces exerted by molecular beams 2647

- Marsden, J. E.  
Generalized Hamiltonian mechanics:  
A mathematical exposition of non-  
smooth dynamical systems and  
classical Hamiltonian mechanics 4002  
Hamiltonian one parameter groups:  
A mathematical exposition of infinite  
dimensional Hamiltonian systems  
with applications in classical and  
quantum mechanics 4820
- Marsh, H.  
See Deverson, E. C. 6350
- Marshak, Yu. L.  
Investigating the combustion of  
anthracite fines in a high-capacity  
vertical cyclone primary furnace 3734
- Marshall, E. A.  
Rolling contact with plastic deformation 5889
- Marshall, E. L.  
Spark knock: Part 2, The influence  
of engine design on spark knock at  
low engine speeds 5543
- Marshall, J.  
See McCluney, B. 2698
- Marshall, P. D.  
See Grover, F. H. 5681
- Marshall, R. J.  
Flow of viscoelastic fluids through  
porous media 2136
- Marshall, T. C.  
See Kuhn, L. 8997
- Marshall, T. N.  
See Bainbridge, G. R. 3753
- Martens, H. R.  
A comparative study of digital integration  
methods 7511
- Martin, A.  
See Frewer, H. 4578
- Martin, C. B.  
See Stenning, A. H. 1163
- Martin, C. W.  
Spirally prestressed concrete cylinders 6140
- Martin, D. J.  
See Howlett, J. T. 6876
- Martin, J. B.  
Displacement bounds for dynamically  
loaded elastic structures 4137
- Martin, L. D.  
See Liu, H. 3608
- Martinek, J.  
A note on the  $\mu$ -zeros of combinations  
of cross-product Bessel functions 8331
- Martinez, F.  
The stiffened arch bridge (Maillart  
type) in viscoelastic regime and subjected  
to virtual deformations 4276
- Martinez, J. L.  
A model for whiplash 748
- Martinot, K.  
See Barreto, E. 2639
- Martinot-Lagarde, A.  
An example of the application of  
internal similarity to unsteady one-  
dimensional flows in channels 4327
- Marto, P. J.  
Nucleate pool boiling of nitrogen  
with different surface conditions 6417
- Martynenko, M. D.  
Fundamental boundary value problems  
in potential theory for a space with  
an elliptic slot: The pressure due to  
an elliptic die on an elastic half-space 4021
- Martynova, L. D.  
Investigation of the dependence of  
specific point resistance and specific  
skin friction on the cross section of  
a pile 9486
- Martynovich, T. L.  
See Vushko, V. P. 8395
- Martynyuk, A. A.  
See Kipichenko, N. F. 1663
- Martynyuk, P. A.  
Interaction of a system of Griffiths  
cracks in an elastically brittle material 7828
- Maruo, H.  
Application of the slender body  
theory to the longitudinal motion of  
ships among waves 2157
- Marusciac, D.  
Use of cement stabilized soils for  
road foundations 7817
- Maruta, A.  
Discharge measurements on irrigation  
canals 4334
- Theory of sonics and some features  
of its mathematical approach 5436
- Marvaud, Ph.  
See Boulot, F. 8742
- Marxman, G. A.  
Effect of surface reactions on the  
solid propellant response function  
Boundary-layer combustion in propulsion 4570  
8958
- Marzollo, A.  
On the mean square approximation  
of a function with a linear combination  
of exponentials 8330
- Masaki, S.  
See Oyane, M. 3318
- Mascarelli, J. -P.  
See Biarez, J. 6904
- Masch, F. D.  
See Dalton, C. 4335
- Mascitti, V. R.  
A simplified equilibrium hydrocarbon-air  
combustion gas model for use in  
air-breathing engine cycle computer  
programs 1258
- Mashima, Y.  
On the incipient sway of sand grains  
by wave action 5660
- Mashirov, V. E.  
See Tarzimanov, A. A. 8892
- Masica, W. J.  
See Coney, T. A. 7058
- Maslen, K. R.  
Simulation of the impedance of the  
human respiratory system in dynamic  
testing of aircraft breathing equipment 758
- Maslennikov, M. V.  
Numerical experiments on flow of  
rarefied plasma around bodies of  
various shapes: Part 1 9884
- Maslov, L. A.  
Use of a method for determining the  
velocity potential of the flow of a  
perfect fluid past a body of revolution  
for the computation of the additional  
masses 4346
- Maslov, N. M.  
See Burmistrov, E. F. 1655
- Maslov, V. P.  
Oblique incidence of a flexural wave  
in a plate on a slender obstacle 221
- Maslova, N. B.  
Random forces and moments acting  
on a body moving in a rarefied gas 4396
- Mason, E. A.  
See Nyeland, C. 4492
- Mason, G.  
Tensile strength of wet granular  
materials 1712
- Radial distribution functions from  
small packings of spheres 2132
- Mason, R. J.  
Kinetic theory of weak shock generation  
by an impulsively started piston 7124
- Mason, S. G.  
See Shizgal, B. 2618
- Mason, V.  
Rectangular finite elements for  
analysis of plate vibrations 6825
- Mason, W. E., Jr.  
Elastic shear analysis of general  
prismatic beams 8453
- Mason, W. J.  
Nonlinear first-order systems reducible  
to classical equations 4836
- Mason, W. P.  
Second-order strain accumulation at  
ultrasonic frequency 2342
- Masoud, M.  
High-speed shock-wave investigation  
in rarefied gas 9014
- Masri, S. F.  
Stability boundaries of the impact  
damper 215
- Massa, E.  
On the steady-state cornering stability  
of a motor vehicle 74  
On the instability of parametrically  
excited two-degrees-of-freedom vibrating  
systems with viscous damping 3253
- Massarani, G.  
Criticism on the validity of the law  
of Darcy in heterogeneous media 704
- Masse, R.  
Deformations in structures with rigid  
angles 1752
- Massey, B. S.  
See Clayton, B. R. 4401
- Masson, B.  
Motion of rotating superfluid helium  
in an annular channel 2602

- Massonnet, Ch.  
Effect of the rigidity of a vertical stiffener on the postbuckling deformation of a square web in shear 5070  
General theory of elasto-plastic membrane-plates 8483
- Mast, R. F.  
Auxiliary reinforcement in concrete connections 6987
- Masters, K.  
A study of centrifugal atomization and spray drying: Part 2 2130
- Mastovsky, J.  
See Kmonicek, V. 522
- Mastrup, F. N.  
See Goldstein, R. 5585
- Mastryukova, A. S.  
See Lukichev, D. M. 349
- Masuda, K.  
A unique continuation theorem for solutions of wave equations with variable coefficients 3000
- Masumoto, I.  
Effects of several elements of bare electrode steel wire for gas shielded metal arc welding 6208
- Masur, E. F.  
See Taylor, J. E. 2392  
See Shieh, R. C. 8496
- Matczynski, M.  
Quasi-static problem of a rigidly clamped elastic layer 4033
- Mate, C. F.  
Kapitza effect in gaseous helium 1948
- Mateesco, D.  
Forces in crane girders: Plate girders with latticed horizontal bracing 4272
- Mateescu, Cr.  
Sensitivity to overloads and safety of structures 3388
- Mateescu, D.  
Polygonal wings with diamond-shaped profile in supersonic flow 6269  
See also Carafoli, E. 1141
- Mateja, O.  
Measuring gages for evaluation of horizontal low frequency vibrations 1692
- Mather, A. E.  
The direct determination of the effect of pressure on enthalpy of a mixture of methane and propane 9803
- Mathieu, J.  
See Tailland, A. 7080  
Tailland, A. 7081
- Mathur, M. N.  
Slow steady motion of a viscoelastic fluid with heat transfer in a wavy channel 551  
Slow steady axial flow of a Rivlin-Ericksen fluid in a wavy annulus with heat-transfer 8734
- Mathurin, M.  
Automatic determination of the resonance of a structure in flight 5088
- Matkin, J. H.  
See Fourney, M. E. 7408
- Matlock, H.  
See Hudson, W. R. 6161  
Salane, H. J. 8539
- Matorina, V. S.  
See Germ, E. I. 3084
- Matoshko, S. I.  
See Strelbitskaya, A. I. 1628
- Matsubara, H.  
See Takano, H. 3967
- Matsubara, K.  
On the wear properties of plastics 2167  
On the sliding friction tester 3870  
See also Watanabe, M. 4774
- Matsuda, A.  
See Nakamura, T. 6544
- Matsuda, K.  
See Takano, H. 3967  
Masumoto, I. 6208
- Matsui, H.  
See Kamimoto, G. 4457
- Matsui, K.  
The crushing extension index and the net energy input to crushing 4723
- Matsui, S.  
Calculation on dynamic performance of hydraulic cushion underframe: Report 1 5125
- Matsuishi, M.  
See Terazawa, K. 3207
- Matsukawa, Y.  
Experiment on linear turbulent heating of plasma 1314
- Matsumiya, K.  
An analysis of turbulent flow in a two-dimensional channel 3559
- Matsumoto, E.  
See Katayama, T. 5634
- Matsumoto, H.  
See Shibuya, T. 5117
- Matsumoto, K.  
Deformation behavior at upper yield point of iron single crystals 8436  
See also Hirowatari, T. 3247
- Matsumoto, M.  
Duhamel's principle in the non-stationary radiation field 1223
- Matsumoto, S.  
Characteristics of course deviation detector for automatic steering car 2249
- Matsunaga, M.  
Application of electrical contact resistance measurements on studies of friction and wear under lubrication 2168
- Matsuoka, K.  
See Sato, M. 8014  
Sato, M. 9647
- Matsushima, K.  
Servo-vibrograph of long natural period 3071
- Matsuura, K.  
See Kurasawa, T. 9007
- Matsuura, Y.  
Pressure distribution over the arc of contact in cold strip rolling of steel 6918  
See also Hirao, O. 6672
- Matsuzaki, R.  
Study of luminous flow ahead of cylinder using an electric shock tube with a diaphragm 2630  
Some experimental data on luminous flow around bodies 8143
- Mattavi, J. L.  
Low-cycle fatigue behavior under biaxial strain distribution 8635
- Matthews, A. T.  
See Bleich, H. H. 1702  
Bleich, H. H. 4180
- Matthews, K. J.  
See Bradley, D. 634  
Bradley, D. 4496
- Matthews, L. S.  
Viscoelastic properties of cat tendon: Effects of time after death and preservation by freezing 8427
- Matthews, S. J.  
Weldability observations in 70/30 copper-nickel tubesheet material 2566
- Matthias, C. S.  
See Dukowicz, J. K. 5574
- Matthias, K.  
Some reflections on rolling friction 6579
- Mattock, A. H.  
Behavior under load of composite box-girder bridges 6995
- Mattson, W. F.  
See Slaby, J. G. 2780
- Matuda, K.  
Grinding properties of batch and continuous vibration mills 9094
- Matula, R. A.  
High temperature thermal conductivity of rare gases and gas mixtures 3636
- Matunobu, Y.  
See Arakawa, M. 5300
- Matveevskii, R. M.  
A method for determining the service life of antifriction coatings at temperatures of up to 600°C in a vacuum or inert media 3883
- Mauch, S. P.  
Releases and constraints in structural networks 8680
- Maude, A. D.  
Theory of the wall effect in the viscosity of suspensions 1059  
Particle migrations in suspension flows 2608
- Mauersberger, P.  
On the consideration of free surfaces in a localized version of the Hamiltonian principle 2711
- Maul, D. J.  
See Kind, R. J. 2689
- Maurer, C. J.  
Stability of naturally bounded nonlinear systems 3044
- Maurer, O. F.  
Facility sonic fatigue proof testing 4701



- Maurer, W. C.  
Thermal-spalling, chemical drills 992
- Maurin, L. N.  
See Bratukhin, Iu. K. 3678
- Maury, J. L.  
See Musen, P. 6493
- Mawhin, J.  
Determination of periodic solutions of weakly nonlinear differential systems by perturbation of linear systems whose characteristic matrix possesses nonsimple elementary divisors 4821  
Families of periodic solutions in differential weakly nonlinear differential systems 6613
- Maxwell, J.  
See Brooks, R. G. 3367
- Maxwell, W. H. C.  
Surface tension in Froude models 8748
- Maxwell, W. W.  
Measures to counter fatigue in railway axles 3341
- Maxworthy, T.  
Experimental studies in magneto-fluid dynamics: Flow over a sphere with a cylindrical afterbody 5591  
Experimental studies in magneto-fluid dynamics: Pressure distribution measurements around a sphere 5596  
The observed motion of a sphere through a short, rotating cylinder of fluid 7050
- Mayer, E.  
Improving the heat transfer in tubes by internal fittings 2776
- Maynard, M. D.  
See Marto, P. J. 6417
- Mayne, D. Q.  
The use of quantization in regression analysis 2203
- Mayne, G.  
Steady rectilinear flow of viscous, non-Newtonian, incompressible fluids 7924
- Mazumder, N. C.  
See Bandyopadhyay, K. K. 5793
- Mazumder, S. K.  
Optimum length of transition in open channel expansive subcritical flow 4329
- Mazurenko, L. V.  
Calculation of a pile acted upon by horizontal forces 7813
- Mazurik, A.  
See Getzler, Z. 3277
- Mazurkiewicz, Z.  
Bending and buckling of elastic frame systems consisting of bars with arbitrarily varying cross sections under their own weight 324  
Bending, vibrations and buckling of a cylindrical shell roof 5973  
Static and dynamic problems of elastic shells of small rise 9355
- Mazzolani, F. M.  
Yield conditions and collapse loads for skew anisotropic reinforced concrete plates 4265
- McAlevy, R. F., III  
Investigation of the AP composite solid-propellant deflagration mechanism by means of experimental analog techniques 2832  
Linear pyrolysis of polymethylmethacrylate during combustion 6437
- McBean, G. A.  
An investigation of turbulence within the forest 2148
- McCamy, K.  
An investigation and application of the crustal transfer ratio as a diagnostic for explosion seismology 1387
- McCarthy, J. R.  
The influence of surface roughness on the heat transfer to gaseous hydrogen flowing turbulently in round cross-sectional tubes 9818
- McCarthy, M. F.  
Wave propagation in nonlinear magnetothermoelasticity: Part I, Propagation of acceleration waves 976
- McCausland, I.  
Introduction to optimal control 5819
- McClain, W. C.  
Disposal of radioactive wastes by hydraulic fracturing: Part 5, Site evaluations 8982
- McClamroch, N. H.  
On the existence of upper bounds on the performance index of nonlinear systems 2225  
Duality and bounds for the matrix Riccati equation 8365  
See also Garrard, W. L. 1541
- McClatchey, J. J.  
See Torvik, P. J. 5080
- McClelland, K. D.  
Pitch of frequency-modulated sinusoids 9919
- McClintock, F. A.  
A criterion for ductile fracture by the growth of holes 1724  
Local criteria for ductile fracture 6940
- McCloy, D.  
Some cavitation effects in spool valve orifices 3462  
Graphical analysis of the step response of hydraulic servomechanisms 7534
- McCluney, B.  
Drag development of the Belfast 2698
- McComas, S. T.  
Hydrodynamic entrance lengths for ducts of arbitrary cross section 370
- McComb, H. G., Jr.  
See Blum, R. E. 3212
- McConalogue, D. J.  
Motion of a fluid in a curved tube 9644
- McConnell, R. K., Jr.  
Viscosity of the mantle from relaxation time spectra of isostatic adjustment 7426
- McCormack, F. J.  
Kinetic equations for polyatomic gases: The 17-moment approximation 8789
- McCormick, M.  
A computer program for the analysis of networks of pipes and pumps 2211
- McCormick, M. E.  
An analysis of the formation of turbulent patches in the transition boundary layer 2664
- McCorquodale, J. A.  
A theory for the forced hydraulic jump 6231
- McCoy, J. J.  
Effects of nonpropagating plate waves on dynamical stress concentrations 958  
An application of the method of moments to stochastic equations 7503  
Effect of edge vibrations on the propagation of a strain transient 9466
- McCroskey, W. J.  
Density and velocity measurements in high-speed flows 3616
- McCutcheon, J. O.  
See Mizra, M. S. 4994
- McDevitt, J. B.  
Upwash patterns on ablating and nonablating cones at hypersonic speeds 8945
- McDonald, H.  
The departure from equilibrium of turbulent boundary layers 1864
- McDonald, J. E.  
See Tynes, W. O. 1751
- McDonough, R. N.  
Best least-squares representation of signals by exponentials 5795
- McFadden, P. W.  
See Adams, J. A. 8082
- McGehee, J. R.  
Investigation of a compartmented-gas-bag landing system having multiple-impact capabilities 1350
- McGhee, R. B.  
Finite state control of quadruped locomotion 5818  
Some finite state aspects of legged locomotion 8298
- McGinnis, F. K., III  
Individual droplet heat-transfer rates for splattering on hot surfaces 8942
- McGlaughlin, D. W.  
Fluidic electrofluid converter 4884
- McGlenn, J.  
Finite element analysis of plywood plates 6158
- McGraw, R. A.  
See Hayday, A. A. 4399
- McGregor, J.  
See Karlin, S. 781
- McGrew, J.  
Orthogonalization of measured modes and calculation of influence coefficients 9221
- McGuire, M. L.  
See Luecke, R. H. 2222
- McHale, E. T.  
See von Elbe, G. 1260

- McHenry, R. R.  
Computer simulation of automobile accidents: A new research tool 4171  
Computer simulation of single vehicle accidents 5794
- McIlhinney, A. E.  
See Capes, C. E. 6397
- McInnis, B. C.  
See Green, A. E. 2328
- McIntosh, S. C.  
See Ashley, H. 3801
- McIntyre, M. E.  
The axisymmetric convective regime for a rigidly bounded rotating annulus 4520
- McIvor, I. K.  
Dynamic response of finite-length cylindrical shells to nearly uniform radial impulse 7786
- McKay, J. M.  
See Wilson, R. J. 4620
- McKay, W. L.  
See Reinecke, W. G. 5332
- McKee, H. B.  
Electrostatic probe measurements in flowing NaK-seeded argon 2882
- McKee, T. B.  
A technique to infer atmosphere temperature from horizon radiance profiles 5699
- McKelvey, J. P.  
See Schetzina, J. F. 3375
- McKenzie, D. P.  
Some remarks on heat flow and gravity anomalies  
The oscillations of a viscous gravitating sphere 5693  
9116
- McKenzie, J. F.  
Radiation losses from a test particle in a plasma 9013
- McLain, D. K.  
See Duffin, R. J. 2770
- McLarnan, C. W.  
On linkage synthesis with minimum error 4295
- McLaughlin, J. R.  
Functions represented by trigonometric series 3920
- McLay, R. W.  
A special variational principle for the finite element method 9189  
See also Johnson, M. W., Jr. 2295
- McLean, F. E.  
See Seebass, R. 1897
- McLean, J. D.  
Second-order errors in linearized velocity corrections and their effects on the rate of convergence of iterative solutions 3932
- McLennan, J. A.  
Space and time dependent fluctuations in a continuous medium 5263
- McLeod, J.  
Simulation: The dynamic modeling of ideas and systems with computers 5791
- McLeod, J. B.  
The behavior of similar solutions in a compressible boundary layer 5387  
The existence of similar solutions for some laminar boundary layer problems 8805  
Von Karman's swirling flow problem 9714
- McLeod, M.  
See Dau, K. 8871
- McLeran, W. A., Jr.  
Composite method for determination of particle size below 45 microns 2950
- McLeroy, E. G.  
See Blue, J. E. 8193
- McManus, H. N., Jr.  
See Fletcher, R. H. 3661
- McMullen, E. T.  
See Sawyer, R. F. 2018
- McNab, I. R.  
See Haines, M. G. 5561
- McNally, R. N.  
Surface tension measurements of refractory liquids using the modified drop weight method 3474
- McNeill, W. E.  
Calculated and flight-measured handling-qualities factors of three subsonic jet transports 7344
- McNicholas, J. B.  
See Rankilor, P. R. 6125
- McNiven, H. D.  
See Mengi, Y. 3258
- McQuaid, J.  
Experiments on incompressible turbulent boundary layers with distributed injection 7132
- McQuain, R. H.  
Significant achievements in space applications 1966 655
- McQueary, C. E.  
Periodic oscillations of a class of nonautonomous nonlinear elastic continua 929  
See also Mack, L. R. 8532
- McQuillin, L. A.  
Experimental determination of thermal stress: A solid circular cylinder in a transverse flow of hot gas 8205
- McQuivey, R. S.  
Some turbulence measurements in open-channel flow 7150
- McRobert, H.  
The acoustic stimulation of the middle ear muscles 1448
- McShane, E. J.  
Relaxed controls and variational problems 3988
- McSkimin, H. J.  
Measurement of dynamic shear impedance of low viscosity liquids at ultrasonic frequencies 359
- McSparran, J. E.  
Design hydrographs for Pennsylvania watersheds 1392
- McTernan, A. J.  
See Black, H. F. 1667
- McVey, E. S.  
See Henderson, K. C. 2251
- McVinnie, W. W.  
Inelastic buckling of unbraced space frames 3204
- McVoy, J. L.  
An analytical approach to the evaluation of submarine safety 1418
- McWilliams, J. R.  
See Bur, T. R. 9494  
Willard, R. J. 9498
- Meador, W. E.  
A semiempirical collision model for plasmas 7327
- Mears, D. R.  
See Pae, K. D. 4051
- Meck, H. R.  
Instability of an angle section beam under an applied bending moment 7725  
Three-dimensional deformation and buckling of a circular ring of arbitrary section 8506
- Meckler, A.  
Dynamical content of differential geometry 3106
- Medearis, K.  
Static and dynamic characteristics of composite structures 1048
- Medecki, H.  
See Abele, M. 2062
- Medenica, W. V.  
Blast shields testing 2098
- Medige, J.  
See Reismann, H. 6834
- Meditch, J. S.  
Orthogonal projection and discrete optimal linear smoothing 1531
- Medvedev, G. S.  
Nonlinear continuous estimation of trajectory parameters from measurement data 3922
- Medvedev, S. N.  
Separation of the effect of change of form and change of volume in the theory of elastic heredity 8426
- Medvedev, S. V.  
Assessing seismic hazard during blasting 7007
- Medvedev, Yu. A.  
See Ivanov, V. V. 5673
- Medwell, J. O.  
See Wilson, N. W. 6393
- Medwid, D. W.  
See Gertsma, L. W. 8091
- Meecham, W. C.  
Use of the Wiener-Hermite expansion for nearly normal turbulence 5401
- Meehan, R. J.  
See Presby, H. M. 4472
- Meerkov, S. M.  
Asymptotic methods for investigating quasi-stationary states in continuous systems of automatic optimization 3086
- Meerov, M. V.  
Multivariable control systems 7524

- Meert, A.  
Acceleration and deceleration of plasma by magnetic waves 8140
- Meesters, G.  
A method of approximation for the carryover moment for continuous beams having many spans 4990
- Meeten, G. H.  
See Champion, J. V. 2577
- Megarefs, G. J.  
Minimal design of sandwich axisymmetric plates: Part 2 907  
Simplifications in minimal design of frames 6166  
Method for minimal design of axisymmetric plates 7692
- Megaw, W. J.  
Electrical mobility of submicron particles 1380
- Meglinskii, V. V.  
Bending of an anisotropic plate with two elliptic openings 143
- Mehmel, A.  
Load-carrying capacity of a reinforced concrete cantilever structure 6990
- Mehta, Y. K.  
Stress distribution in a thick plate having transverse isotropy 6776
- Mei, C. C.  
Weak reflection of water waves by bottom obstacles 8852
- Meier, L., III  
Optimal control of measurement subsystems 63
- Meijer, R. J.  
The Philips-Stirling engine 8971
- Meijers, P.  
The contact problem of a rigid cylinder on an elastic layer 3123
- Meissner, M.  
Investigations into the influence of the winding ratio on the endurance limit of cold-formed cylindrical helical pressure springs 9524
- Meister, B. J.  
Generalized solution of the Tomotika stability analysis for a cylindrical jet 3508
- Meixner, J.  
Thermodynamics of processes in simple fluids and the characterization of thermodynamics of irreversible processes 7205
- Mekenitskaya, L. I.  
See Kusakov, M. M. 1794
- Mekler, Yu. B.  
See Volarovich, M. P. 9108
- Meksyn, D.  
The foundations of turbulent motion flow between parallel planes: Part 3 4418
- Melcher, J. R.  
See Woodson, H. H. 3092
- Melcher, R. L.  
Frequency modulation CW technique for the measurement of very small changes in ultrasonic velocity 2926
- Meldrum, B. H.  
See O'Toole, K. M. 9460
- Melese-d'Hospital, G.  
Simplified analysis of coolant flow and outlet temperature in gas-cooled nuclear reactor cores 4511
- Melin, L.  
See Chevalier, R. 5552
- Melinikov, B. N.  
Experimental investigations of stability of shallow foundations in freezing clayey soils 987
- Melker, A. I.  
See Vasilev, D. M. 301
- Mellenthin, J. A.  
See McDevitt, J. B. 8945
- Mellor, P. B.  
See Duffill, A. W. 6082
- Melnikov, V. G.  
See Pogorelov, Yu. S. 343
- Melone, T. G.  
See Cohen, M. I. 9614
- Melosh, R. J.  
Multiple configuration analysis of structures 6167
- Melrose, D. B.  
The emission and absorption of waves by charged particles in magnetized plasmas 7328
- Melton, N. M.  
Fracturing oil shale with electricity 256
- Melton, R. B., Jr.  
Mohr's circle presentation on an oscilloscope 4244
- Melts, I. O.  
Nonlinear programming methods for optimizing dynamical systems in function space 3983
- Meltz, G.  
See Nygaard, K. J. 5590
- Melville, J.  
See Calvit, H. H. 6891
- Melvin, A.  
Transient convective heat transfer from gaseous explosions 2012
- Melzer, W.  
On a simple form of the method of source and vortex distributions in fluid dynamics 7061
- Mencarelli, E.  
Misleading images: Sources of error in the interpretation of electronic microfractography 9528
- Mendelson, H. D.  
The prediction of bubble terminal velocities from wave theory 7949
- Mendelson, R. S.  
See Cassanto, J. M. 5327
- Mendera, Z.  
See Murzewski, J. 6107
- Menefee, E.  
A mechanical model for wool 8415
- Meng, P. R.  
See Urasek, D. C. 7952
- Mengi, Y.  
Asymptotic phase velocities of axisymmetric waves in composite rods 3258
- Mennicken, R.  
On the convergence of infinite Hill-type determinants 7479  
On Ince's equation 7481
- Mercier, J.  
Kinematic and dynamic description of the pulsing movement of a water drop 9095
- Merhaut, J.  
A contribution to the theory of electro-acoustic transducers based on electrostatic principle 1351
- Merilees, P. E.  
On the linear balance equation in terms of spherical harmonics 2150  
On the transition from axisymmetric to nonaxisymmetric flow in a rotating annulus 8247
- Merkel, E. Yu.  
See Ruvin, Yu. R. 4524
- Merkin, J. H.  
The effect of buoyancy forces on the boundary-layer flow over a semi-infinite vertical flat plate in a uniform free stream 9725
- Merklinger, H. M.  
Bottom reverberation measured with explosive charges fired deep in the ocean 6525
- Mermagen, W. H.  
Precursor infrared radiation from hypervelocity ablating bodies 2003
- Meroney, R. N.  
Turbulent sublayer temperature distribution including wall injection and dissipation 6428
- Merriam, R. L.  
A liquid metal heat-transfer experiment and its relation to recent theory 3684  
See also Viskanta, R. 4533
- Merrington, G. L.  
A pitch and yaw meter 508
- Merritt, D. L.  
Mach reflection on a cone 5346
- Merritt, G. E.  
Research on hypersonic condensation phenomena in high temperature gases: Part I, Mercury condensation experiments 5331
- Merry, J. B.  
See Melcher, R. L. 2926
- Mertz, H. J., Jr.  
Investigation of the kinematics and kinetics of whiplash 4801  
See also Patrick, L. M. 3885
- Merwin, J. E.  
See Akyuz, F. A. 7508
- Merzhanov, A. G.  
See Averson, A. E. 8952
- Merzkirch, W.  
The influence of the Reynolds number on the base flow behind a wedge in super- and hypersonic flow 7972
- Meschian, S. R.  
On the question of extraction of void water and the compaction of clay grounds in time 982

- Meserve, C. E.  
See Sutcliffe, S. 6883
- Meshkauskas, Y. I.  
Losses of reinforcement prestressing in laminated members of light-weight concretes 1040
- Meshkov, S. I.  
See Darinskii, B. M. 1684  
Darinskii, B. M. 2417
- Meszaros, G.  
See Szolnoky, Cs. 984
- Metsaveer, Ya. A.  
Nonlinear oscillations of rectangular plates with rigid building-in along the contour 9422
- Metzner, A. B.  
See Marshall, R. J. 2136
- Meyer, A. U.  
See Hsu, J. C. 2219
- Meyer, C. A.  
Thermodynamic and transport properties of steam comprising tables and charts for steam and water (calculated using the 1967 IFC formulation for industrial use in conformity with the 1963 International Skeleton Tables as adopted by the Sixth International Conference on the Properties of Steam) 1191
- Meyer, E.  
Absorption of water-borne sound by forced alternating flow of fluids 4677
- Meyer, G.  
Response envelope: A global description of three-axis large-angle spacecraft attitude control systems 1503
- Meyer, J. A.  
See Hagemaiier, D. 8672
- Meyer, M. L.  
See Bazergui, A. 6134
- Meyer, P.  
On sliding curves of trochoids 3416
- Meyer, R.  
See Parisot, J. 1185
- Meyer, R. E.  
See Shen, M. C. 8844
- Meyer, R. L.  
See Kennedy, W. A. 264
- Meyer, R. N.  
See Wu, S. M. 4782
- Meyers, C. L., Jr.  
Strain-hardening effects in BCC, FCC, and HCP metals loaded at very high rates 8665
- Meyers, S.  
See Karmeli, D. 4845
- Meyer zur Capellen, W.  
Inverted slider crank, coupled in tandem to another four bar, to generate a constant velocity ratio 8718
- Miasnikov, V. P.  
See Mosolov, P. P. 4317
- Miastkowski, J.  
See Szczepinski, W. 1602
- Michael, A. J.  
Intensity method for stress-optical measurements 7852
- Michael, D. H.  
The steady motion of a sphere in a dusty gas 1818  
The laminar flow of a dusty gas between two rotating cylinders 4357  
Free surface instability in electrohydrodynamics 5430
- Micheletti, G. F.  
Contribution to the study of the relationship between forced vibrations and surface finish in the grinding of cylindrical pieces 997  
Research tests on the relationship between forced vibrations and surface finish in the grinding of cylindrical pieces 998
- Michellini, R. C.  
See Rossi, L. C. 2077
- Michelsen, F. C.  
See Chang, P.-Y. 7730
- Michelson, D.  
Electrocapillary discharge of a liquid 3464
- Michie, D.  
"Memo" functions and machine learning 68
- Mickey, W. V.  
See Espinosa, A. F. 4672  
Espinosa, A. F. 8170
- Mickiewicz, C.  
Post-critical axisymmetric state of an annular plate with free edges in a stationary temperature field 5966
- Miczek, G.  
Thermophoresis of solid and liquid particles 557
- Middleman, S.  
See Powell, R. L. 2775
- Middleton, D.  
See Bradshaw, P. 4660
- Middleton, E.  
A reflex spectrographic technique for in-plane strain analysis 8656
- Midgley, J. W.  
See Arnell, R. D. 3872
- Mied, R. P.  
See Phillips, O. M. 4426
- Miekisz, S.  
On a certain model of cardiovascular system 10003
- Miele, A.  
Method of particular solutions for linear, two-point boundary-value problems 3944  
Simplified approach to the problem of the optimum transversal contour 5419  
Maximum lift-to-drag ratio of a slender wing at hypersonic speeds 6317  
Missile shapes of minimum ballistic factor 6690  
Maximum lift-to-drag ratio airfoils at moderate supersonic speeds 8815
- Miessner, W. W.  
See Rubin, A. I. 3937
- Migai, V. K.  
Effect of corner regions in ducts on friction and heat transfer 8061
- Mighdoll, P.  
Infrared radiative equilibrium under large path length conditions 3697
- Migulin, A. V.  
See Gorodetskii, A. K. 1953
- Mihaila, A.  
See Boure, J. 4554
- Mihul, A.  
Prestressing of straight reinforced concrete elements by overloading 6992
- Mikadze, R. A.  
See Bakradze, I. I. 346
- Mikaelyan, I. O.  
Synthesis of a four-bar mechanism according to a given law of motion of the slide-bar 8713
- Mikami, I.  
See Yonezawa, H. 919  
Konishi, I. 4106  
Yonezawa, H. 7879
- Mikhail, M. L.  
See Swartz, S. E. 9392
- Mikhailenko, L. I.  
Measuring the temperature of moving drops 3650
- Mikhailov, I. G.  
See Gitis, M. B. 9062
- Mikhailov, N. V.  
See Pashkovski, V. G. 2475  
Sovalov, I. G. 2578  
Markov, A. I. 6104  
Chlenov, V. A. 6222
- Mikhailov, R. N.  
See Konenkov, Yu. K. 6823
- Mikhailov, Y. L.  
Some questions of the dynamics of a jet amplifier in automatic control systems 3975
- Mikhailovskaya, L. V.  
Oscillation of inhomogeneous plasma with finite pressure 8127
- Mikhailovskii, A. B.  
Drift waves in a finite-pressure plasma 4592
- Mikhailovsky, G. A.  
Dynamic processes accompanied by mass transfer: Part 2 6424
- Mikhalev, M. A.  
See Levi, I. I. 2057
- Mikhalev, M. F.  
See Denisov, Yu. N. 4445
- Mikhaylov, M. D.  
Transient temperature fields in shells 8048
- Mikhlin, E. Ya.  
Kinetics of gaseous expansion of porous materials 2000
- Mikitishin, S. I.  
The role of working media and temperature in the process of fracture 6106
- Mikkola, M.  
Lateral buckling of I beams beyond the limit of proportionality 5045  
Influence lines for beams on a Winkler-type elastic foundation, with the effect of the shear deformation of the beam taken into account 7663
- Miklyaev, P. G.  
On the anisotropy of the resistance of metals to fatigue fracture 4234



- Mikoshiba, N.  
See Abe, Y. 7381
- Mikus, J.  
Approximate determination of vibration frequency in conservative systems: Part 3 3223
- Mikyska, L.  
Cooling curve computation of upstream induced-drop cooling tower 1248
- Mil, M. L.  
Helicopters: Calculation and design, Vol. 2, Vibrations and dynamic stability 4615  
Helicopters: Calculation and design, Vol. 1, Aerodynamics 9898
- Milacic, V. R.  
The application of correlation theory for the investigation of cutting torque in horizontal milling 6922
- Mileiko, S. T.  
Some results of an experimental investigation of short-range creep under uniaxial tension 6729
- Miles, D. O.  
See Knollman, G. C. 7027
- Miles, J. B.  
Similarity parameter for two-stream turbulent jet-mixing region  
Evaluation of Coles' turbulent compressible boundary-layer theory 4409
- Miles, J. E. P.  
See Carleton, A. J. 9599
- Miles, J. W.  
The Cauchy-Poisson problem for a viscous liquid 5427  
Lee waves in a stratified flow: Part 2, Semicircular obstacle 7170  
Lee waves in a stratified flow: Part 1, Thin barrier 8834
- Milgram, J. H.  
The effect of a wake on the wave resistance of a ship 7442
- Milhorn, H. T., Jr.  
See Guyton, A. C. 3897
- Miller, A. I.  
See Cloete, F. L. D. 693
- Miller, C. A.  
The oscillations of a fluid droplet immersed in another fluid 3589
- Miller, C. E.  
Evaluation of a vibration damping tool and of drill stem torque requirements from data recorded by an instrumented drill stem member 6078
- Miller, C. G., III  
Experimental base pressures on 9° spherically blunted cones at Mach numbers from 10.5 to 20 1107  
Real-helium hypersonic flow parameters for pressures to 3600 atmospheres and temperatures to 15000°K 1836
- Miller, D. R.  
The boundary layer on a paraboloid of revolution 9705
- Miller, G. K., Jr.  
A manual navigation method for evaluating transfer orbits for lunar landings 649
- Miller, H. T.  
Methods of damping very stiff structural members 5097
- Miller, M.  
See Stolarik, J. D. 9904
- Miller, M. H.  
On the penetration of rock by three-dimensional indentors 5168
- Miller, M. K.  
Calculation of horizontal ranges and sound intensities by use of numerical integration techniques 9061
- Miller, R. D.  
See Teasel, R. C. 2819
- Miller, R. K.  
Perturbations of Volterra integral equations 7494  
A stability theorem for nonlinear mixed integral equations 7495
- Miller, W. R.  
Rotating principal stress axes in high-cycle fatigue 6957
- Millham, C. B.  
On uniqueness of optimal basic solutions to linear program 2194
- Millheim, K. K.  
Testing and analyzing low-permeability fractured gas wells 3844
- Milligan, R. W.  
See Lakshmikantham, C. 6784
- Mills, C. J.  
A catheter tip electromagnetic velocity probe and its evaluation 7475
- Mills, R. D.  
Numerical and experimental investigations of the shear layer between two parallel streams 6260
- Mills, R. G.  
Some engineering problems of thermonuclear reactors 593
- Milne, A. R.  
See Brown, J. R. 4688
- Milne, R. D.  
Asymptotic solutions of linear stationary integro-differential equations 6620
- Milner, H. R.  
See Gent, A. R. 8502
- Milne-Thomson, L. M.  
Plane elastic systems: 2nd edition, corrected 5847  
Potential flow when a uniform stream of inviscid liquid is disturbed by an oval of Cassini 7943
- Milo, S.  
See Giadrossi, G. 3049
- Milovanov, Yu. V.  
See Ivanovskii, M. N. 8936
- Milshtein, G. N.  
Stability in the mean square of a system of stochastic differential equations 7482
- Milukas, A. I.  
Vibrating of peat pulp in the preparation process of insulated plates made from peat 5073  
Use of vibrations in the preparation of thermosound insulated plates made from peat 5074
- Milwee, W. I., Jr.  
The effect of flow angle on convection heat transfer in tube banks 2796
- Minagawa, S.  
On a solution for the stresses in a curved membrane 6757  
See also Tamaki, T. 8443
- Minai, R.  
See Kobori, T. 8558
- Minailos, A. N.  
See Kozlova, I. G. 4370
- Minami, Y.  
Corrosion fatigue of weathering steel in seawater 2493  
See also Ito, M. 7556
- Minardi, E.  
The thermodynamics of a collisionless plasma at equilibrium in a magnetic field 9008
- Minardi, J. E.  
Computer program for the calculation of electric fields in an electrofluidynamic generator 5562
- Minasaryan, A. A.  
Reduction and favorable redistribution of residual welding stresses in 1Cr18Ni9Ti steel steam lines 7916
- Minashin, V. E.  
Calculation of the temperature in the active zone of a reactor for an arbitrary law of heat evolution over the height of the zone 1966
- Minato, K.  
See Takemura, T. 8277
- Mindlin, H.  
Influence of details on fatigue behavior of structures 6944
- Mindlin, R. D.  
On first strain-gradient theories in linear elasticity 867  
Polarization gradient in elastic dielectrics 2307  
Theories of elastic continua and crystal lattice theories 9302
- Mine, H.  
Reliability considerations on redundant systems with repair 3012  
See also Osaki, S. 3926
- Minea, S.  
See Petcu, V. 2524
- Mingori, D. L.  
Effects of energy dissipation on the attitude stability of dual-spin satellites 9906
- Minka, V. A.  
Heat leakage through heat exchanger insulation, and determination of the optimum insulation volume 532
- Minlos, R. A.  
Phenomenon of phase separation at low temperatures in certain lattice models of a gas 1941
- Minsaas, K. J.  
Propeller theory 4449
- Mintzer, D.  
See Dunphy, K. H. 2860  
Jhunjhunwala, N. 5460

- Minukhin, L. A.  
See Bolotov, A. A. 5504
- Mioduchowski, A.  
The kinematics of bars in plastic torsion with discontinuous inhomogeneities 2346
- Mioduszewski, W.  
Hydraulic gradients in impervious earth layers of earth dams 8745
- Miranda, M.  
See Giusti, E. 2999
- Mirels, H.  
Stagnation-point boundary layer with large wall-to-freestream enthalpy ratio 1125  
Subsonic flow of hot gas through a highly cooled channel 2613  
Momentum integral solution for shock tube test time 7197  
See also Ellinwood, J. W. 9670
- Mirkin, B. G.  
Minimization of sequential machines with relation to regular events complete on the right 1472
- Mirkin, L. I.  
Progressive necking and orientation effects in the deformation of kapron 887
- Mirkovich, V. V.  
Experimental study relating thermal conductivity to thermal piercing of rocks 3295
- Mironov, M. V.  
A modification of the theory of uniform distribution and its application to the theory of oscillations  
Use of the Hamilton-Ostrogradskii principle in problems of the theory of nonlinear oscillations 9410
- Mirovolskii, Z. L.  
See Styrikovich, M. A. 5510
- Miroshin, R. N.  
Improved analysis of the distribution functions and kinetic equations of a rarefied gas 4394
- Miroshnichenko, V. I.  
See Kondratenko, A. N. 1286
- Mirovitskii, D. I.  
See Budagyan, I. F. 973  
Budagyan, I. F. 2427
- Mirzad, S. H.  
The elastic design of large unsymmetrical arch dams with high speed computers 5245
- Mirzadzhanzade, A. Kh.  
Hydraulic resistance of a clay solution flow in a pipe with permeable walls 7407
- Mischke, C. R.  
An introduction to computer-aided design 787
- Mishnaevskaya, E. I.  
Coefficient of lateral expansion of firm clays 5143
- Mishra, M. S.  
See Saxena, M. N. 1018
- Mishra, S. P.  
Laminar elasticoviscous flow in an annulus with porous walls 6552
- See also Ghosh, T. P. 9994
- Misicu, M.  
The coupled mechanical model: Hypo- and hyper-deformable bodies 1568  
The mechanics of heterogeneous media with independent coupling motions 1592  
Interpolation principles of dynamics and dual continuum theory of material systems 8728
- Mison, K.  
Characteristic velocities of relativistic rockets 3755
- Mitchell, C. G. B.  
Calculation of the response of a fighter aircraft to turbulent air and a comparison with flight measurements 2888  
The calculation of aerodynamic forces and pressures on wings entering step gusts 3563
- Mitchell, D.  
See Whillier, A. 6403
- Mitchell, J. K.  
Electrical dispersion in relation to soil structure 6058  
See also Campanella, R. G. 1710
- Mitchell, L. A.  
See Houghton, J. E. 7450
- Mitchell, R. A.  
Analysis of  $n$ -degree elliptical elastic rings of nonuniform cross section 895
- Mitchell, W. T.  
Thermal convection in a completely confined fluid layer 3679
- Mitchner, M.  
See McKee, H. B. 2882  
Kruger, C. H. 5581  
Kruger, C. H. 5595
- Mitelman, M.  
Large deflection of cantilever beams in bending 4988
- Mitra, A. K.  
On the torsional vibration of a semi-infinite circular cylinder of non-homogeneous material by a particular type of twist on the plane end 165
- Mitra, P.  
On the variation of coefficient of friction at the chip-tool interface 2467
- Mitrofanov, Y. M.  
Effectiveness of glued joints of precast reinforced-concrete girders 6212
- Mitropolskii, Yu. A.  
The monofrequency method in the dynamic analysis of structures 6012
- Mitschke, M.  
Direction holding: Analysis of theories 5744
- Mitskevich, A. M.  
Motion of a body over a tangentially vibrating surface, taking account of friction 2161
- Mitsuyasu, A.  
Investigation at low speeds of delta wings having two airfoil section for each of apex angles 8015
- Mitvalsky, V.  
Phenomenological relation between thermophysical properties 4717
- Miu, I. M.  
Contributions to the zeros of some differential equation solutions 1463
- Miwa, K.  
Investigation into a novel gas-turbine cycle with an equi-pressure air heater 8032
- Miyabe, M.  
See Hirao, O. 6672
- Miyagi, T.  
Numerical study of Oseen flow past a perpendicular flat plate 381
- Miyahara, H.  
Cardiac arrhythmia diagnosis by digital computer: Considerations related to the temporal distribution of  $P$  and  $R$  waves 1438
- Miyai, Y.  
On a calculation of the lift of a tunnel-type ram wing 7157  
See also Kida, T. 9744
- Miyairi, T.  
The stress analysis of the Warren truss with rigid joints: Consideration of secondary stress in truss 7893
- Miyajima, K.  
Some considerations on pilot induced oscillations 2244
- Miyake, Y.  
See Murata, S. 485
- Miyano, Y.  
The mechanical and optical characterization of polyurethane with application to photoviscoelastic analysis 9531
- Miyashiro, H.  
Waterhammer analysis of pump system 1155  
Waterhammer analysis of pump discharge line with several one-way surge tanks 9778
- Miyaura, S.  
See Inoue, J. 1379
- Miyoshi, H.  
Study on pitting in rolling contact: Part I, On the mechanism of pitting occurrence 9996
- Mizel, V. J.  
See Coleman, B. D. 3629  
Gurtin, M. E. 4934
- Mizoguchi, A.  
See Yamamoto, T. 6600
- Mizoguchi, K.  
Deformation and stress in a cylindrical shell under concentrated loading: Part I, Radial loading 7699
- Mizra, M. S.  
Response of concrete beams with longitudinal reinforcing to combined bending and torsion 4994
- Mizuno, M.  
Macroscopic analysis of wear processes 5719
- Moavenzadeh, F.  
See Ashton, J. E. 1594  
Ashton, J. E. 9328

- Mobbs, F. R.  
Spreading and contraction at the boundaries of free turbulent flows 4422
- Mochalov, V. A.  
See Brdlik, P. M. 7288
- Modi, P. N.  
Flow past two-dimensional normal and inclined plates set in contact with boundary 3460
- Modi, V. J.  
Roll dynamics of a spinning axisymmetric satellite using the WKBJ method 4646  
Roll dynamics of a spinning axisymmetric satellite in an elliptic orbit 9035  
See also Brereton, R. C. 1335
- Modisette, J. E.  
See Chu, W. H. 3864
- Modlen, G. F.  
Re-orientation of fibers during mechanical working 9502
- Moe, J.  
Cost and weight minimization of structures with special emphasis on longitudinal strength members of tankers: Parts 1-2 6984
- Moe, K.  
Recent experimental evidence bearing on satellite drag coefficients 1349
- Moegling, J. B.  
See Drake, R. M., Jr. 5506
- Moffatt, R. J.  
The turbulent boundary layer on a porous plate: Experimental heat transfer with uniform blowing and suction 7286
- Moffatt, H. K.  
The annihilation of a two-dimensional jet by a transverse magnetic field 1288  
On the suppression of turbulence by a uniform magnetic field 6468  
The degree of knottedness of tangled vortex lines 8756
- Moffatt, W. C.  
MHD flat plate boundary layer calculation methods: A comparison 2042
- Mogami, T.  
Angle of internal friction of granular material and a simple transient phenomenon 3822
- Mohanty, A. K.  
Self-oscillations in a piece-wise linear system 8342
- Mohler, R. R.  
See Rink, R. E. 6656
- Mohr, G. C.  
See Henzel, J. H. 1436
- Mohtadi, M. F.  
See Masters, K. 2130
- Moilliet, A.  
See Grant, H. L. 4759
- Moiseev, N. N.  
Numerical methods of optimal control theory using variations in the state space 5827
- Moiseev, S. S.  
See Zaslavskii, G. M. 3767
- Moisei, E.  
Some contributions to the study of gas flow through channels with transversal slots 8752
- Mok, C.-H.  
Dynamic expansion of a spherical cavity in an elastic, perfectly plastic material 3302  
Effects of solid strength on the propagation and attenuation of spherical and plane shock waves 4182
- Mok, Y. I.  
See Parker, R. O. 1812
- Moked, I.  
Toothed couplings: Analysis and optimization 7012
- Mokhtarian, K.  
Hotspot flexure of plate on circular support 9081
- Mokry, M.  
Aerodynamic measurements by means of Mach-Zehnder interferometer 7191
- Molchan, G. M.  
On some problems concerning Brownian motion in Levy's sense 5772
- Molchanov, A. A.  
Method of transfer control of harmonic-frequency multistable elements 9255
- Molgaard, J.  
See Grosberg, P. 2163
- Molian, S.  
Solution of kinematic equations by Newton's method 5260  
The design of cam mechanisms and linkages 7011
- Molinari, V. G.  
See Boffi, V. C. 3771
- Molkenthin, A.  
Influence surfaces for field and support bending moments of two-span plates with free longitudinal edges 9349
- Moller, C.  
Relativistic thermodynamics: A strange incident in the history of physics 3631
- Moller, N.  
A transportable soil-implement test facility 3287
- Mollo-Christensen, E. L.  
See Gupta, A. K. 3588
- Molloy, C. T.  
Design of spherical radiators capable of producing prescribed directivity patterns 2101
- Molls, F. B.  
See Olsen, W. A., Jr. 8089
- Molochko, V. I.  
See Kononov, E. G. 4967
- Molotokov, A. I.  
See Mukhina, I. V. 964
- Molotkov, I. A.  
High frequency oscillations of a thin elastic layer of variable thickness 4178  
Oscillations of a cylindrical shell filled with a fluid and surrounded by an elastic medium 5679
- Molyneux, J. E.  
See Keller, J. B. 377
- Momoi, T.  
Long waves invading obliquely to a semi-circular peninsula 6335
- Monahan, M. A.  
Vibration analysis by holographic interferometry 6024
- Monakhov, N. M.  
Flow of a hypersonic gas stream around conical bodies 1834
- Mond, B.  
Duality for control problems 1520  
See also Hanson, M. A. 4855
- Monforton, G. R.  
Finite element analysis of skew plates in bending 900
- Monin, A. S.  
Surface area of a wave-disturbed sea 1395  
Turbulence in the atmospheric boundary layer 2147  
Equations for finite dimensional probability distributions of a field of turbulence 2676  
Equations of turbulent motion 6304
- Monkewicz, A. A.  
Changes in the vibrational napier (relaxation) time of methane-water-vapor mixtures 676
- Monkmeyer, P. L.  
See Gelhar, L. W. 1133
- Monnin, C. F.  
Stability of two-fluid wheel flows with an imposed uniform axial magnetic field 9875  
Energy transfer and ion cost in a hydrogen plasma 9879
- Monro, P. A. G.  
Methods for measuring the velocity of moving particle under the microscope 1167
- Monta, W. J.  
Drag due to two-dimensional surface roughness in a turbulent boundary layer at Mach 3 with and without heat transfer 2699  
See also Czarnecki, K. R. 7163
- Montague, P.  
Elastic-plastic, axisymmetric analysis of a thin-walled cylindrical shell subjected to a radial pressure difference 5932
- Montgomery, D.  
See Armstrong, T. 2043
- Monthulet, A.  
Improvement of methods and experimental set-ups for creep-plasticity tests 113
- Moody, M. L.  
Response of slender columns to rapid compression 9397  
See also Salama, A. E. 7673
- Moon, D. W.  
Dislocation velocity in single and polycrystalline silicon-iron 3150
- Moon, F. C.  
The rigid inclusion in an unsymmetric field 3117
- Moore, C. J.  
An acoustic power measuring device 2927

- Moore, D.  
See Munk, W. 4757
- Moore, D. O.  
Synthesizing daily discharge from rainfall records 2964
- Moore, D. W.  
See Harper, J. F. 4361
- Moore, J. B.  
A generalization of the Popov criterion 1493  
Extensions of quadratic minimization theory: Part 1, Finite time results 3075  
Simulation of stationary stochastic processes 7543  
See also Anderson, B. D. O. 3076
- Moore, J. T.  
See Duncan, T. R. 3152
- Moore, J. W.  
See Henderson, K. C. 2251
- Moore, N. P. W.  
See Sud, Y. C. 578
- Moore, R. D.  
Prediction of thermodynamic effects of developed cavitation based on liquid-hydrogen and freon-114 data in scaled Venturis 1803  
See also Ruggeri, R. S. 7179
- Moore, R. E.  
Practical aspects of interval computation 4852
- Moore, R. H.  
See Eichblatt, D. L. 1140
- Moore, R. M.  
Semiconductor gages make sense in most transducer applications 292
- Moore, W. M.  
See Scrivner, F. H. 7816
- Morales, W. J.  
See Nevill, G. E., Jr. 1913
- Moran, F.  
Development and application of self-optimizing control to coal-fired steam-generating plant 1543  
Theoretical and experimental study of skew bending in reinforced concrete sections 3395  
Automatic control of power-system frequency by machine controllers 3973
- Moran, M. J.  
Similarity analysis via group theory 2659
- Moran, T. J.  
See Sethna, P. R. 5075
- Morante, A. B.  
On the principle of gyroscopic effect for self-excited rigid bodies 5842
- Mordchelles-Regnier, G.  
See Jannot, M. 8809
- Mordfin, L.  
Torsion creep of circular and non-circular tubes 4952
- Morduchow, M.  
Class of solutions of the axisymmetric boundary-layer equations with mass transfer 2657
- Moreau, C.  
Temperature measurement on structural parts of supersonic aircraft during simulated tests of kinetic heating 2764
- Morecki, A.  
Some problems of bioelectric control of natural and artificial limbs 10005
- Morelli, A.  
Collision tests on automobile models 5137  
Influence of roll on vehicle overturning conditions 7578
- Morelli, J. P.  
See Corsiglia, V. R. 9027
- Moreley, C. T.  
Yield-line theory for reinforced concrete slabs at moderately large deflections 316  
Skew reinforcement of concrete slabs against bending and torsional moments 9570
- Morgan, A.  
See Sachs, K. 2476
- Morgan, C. J.  
See Wanhainen, J. P. 1257  
Wanhainen, J. P. 9856
- Morgan, D. V.  
See Jones, W. M. 7194
- Morgan, R.  
See Kotik, J. 9136
- Morgan, W. B.  
Some results from the inverse problem of the annular airfoil and ducted propeller 8270
- Morgenstern, N. R.  
Nonlinear stress relations for a homogeneous sandstone 8600
- Mori, M.  
On the transverse strength of oil tankers with side girders in both center and wing tanks 4290  
On transverse strength of oil tankers 6186
- Mori, Y.  
On the study of the flow through an impeller of mixed and inward-flow radial turbines: Part 2, Experiments of turbines with a small number of blades and with edge-cut hub 6351  
Thermodynamic and electrical properties of combustion gas and its plasma: Part 1, Theoretical calculation 7210  
Study on forced convective heat transfer in curved pipes: Part 2, Turbulent region 8055  
Convective heat transfer in rotating radial circular pipes: Part 1, Laminar region 8907  
A shock tube study of nonequilibrium MHD power generation 9883
- Morichi, S.  
See Yamamoto, M. 6129
- Morino, L.  
A perturbation method for treating nonlinear panel flutter problems 9894
- Morita, T.  
See Uchida, H. 5518
- Morland, L. W.  
Generation of thermoelastic stress waves by impulsive electromagnetic radiation 3270
- Elastic-plastic wave generation by impulsive electromagnetic radiation 8204  
See also Hegemier, G. A. 7793
- Morley, L. S. D.  
The triangular equilibrium element in the solution of plate bending problems 1623  
A triangular equilibrium element with linearly varying bending moments for plate bending problems 1627  
The analysis of column supported plates with special application to bridges 4090  
Some variational principles in plate bending problems 5928
- Morosanov, I. S.  
Concerning an error in application of statistical linearization method 1501
- Morozov, I. I.  
Determination of hydraulic characteristics of local resistances at low steam contents of a flow 8939
- Morozov, N. F.  
Nonlinear oscillations of thin plates with allowance for rotational inertia 935  
Nonlinear problem on the equilibrium of a circular symmetrically-loaded plate solved by Galerkin's approximations 8484
- Morozov-Rostovskii, G. P.  
Method for the correlation analysis of turbulent velocity in a narrow frequency band 454
- Morris, J. C.  
Radiation studies of arc heated nitrogen, oxygen, and argon plasmas 2052
- Morris, J. Ll.  
See Gourlay, A. R. 2202
- Morris, O. A.  
Aerodynamic characteristics of a parasol-wing-body combination utilizing favorable lift interference at Mach numbers from 3.00 to 4.63 3568
- Morris, R. C.  
FORMAT—Fortran Matrix Abstraction Technique: Vol. 7, Description of digital computer program—Phase III 9216
- Morrison, J. A.  
Resonant forced nonlinear oscillatory and rotary motions 1662  
Motion in the neighborhood of a stationary point 3911
- Morrison, J. B.  
Bioengineering analysis of force actions transmitted by the knee joint 747
- Morrison, M. E.  
See Lawton, J. 1231
- Morrison, N.  
Smoothing and extrapolation of continuous time series using Laguerre polynomials 9226
- Morrison, R. A.  
Load/life curves for gear and cam materials 8706
- Morrone, T.  
Time harmonic, spherical harmonic, and power series expansion of the Boltzmann equation 9006



- Morrow, C. T.  
Diffraction of ocean waves about a breakwater 3850
- Morse, P. M.  
Theoretical acoustics 4658
- Morse, T. F.  
See Cipolla, J. W., Jr. 6281
- Mortell, M. P.  
Traveling load on a cylindrical shell 6882
- Mortensen, R. E.  
Stochastic optimal control with noisy observations 848  
A priori open loop optimal control of continuous time stochastic systems 6683
- Morton, A. S.  
See White, P. R. S. 1441
- Morton, B. R.  
On similarity and the outer boundary conditions for flow in plumes 720  
On Telford's model for clear air convection 2972
- Moseenkov, B. I.  
See Mitropolskii, Yu. A. 6012
- Moseley, W. C., Jr.  
Aerodynamic stability characteristics of the Apollo command module 1891  
Aerodynamic characteristics determined during development of the Apollo launch escape vehicle configuration 9040
- Moses, R. L.  
See Wiederhorn, S. M. 1721
- Mosher, D.  
See Chen, F. F. 2876
- Moskalenko, A. I.  
Bellman equations for optimal processes with constraints on the phase coordinates 6679
- Moskalenko, V. N.  
See Bolotin, V. V. 7394
- Moskalev, E. S.  
See Karpovskii, M. G. 9265
- Moskowitz, S.  
Trans-stellar space navigation 1337
- Mosolov, P. P.  
On qualitative singularities of the flow of a viscoplastic medium in pipes 4317
- Moss, J. N.  
A study of the performance of low-density phenolic-nylon ablators 8099
- Mossakovskii, V. I.  
A problem in the theory of brittle fracture 6937
- Mossakowska, Z.  
Equations of nonlinear theory of elasticity: The case of mass sources 8393
- Mossop, S. C.  
Measurements of ice crystal concentration in clouds 6576
- Mot, E.  
A note on the shape of the shear plane in orthogonal cutting 3308
- Mote, C. D., Jr.  
Divergence buckling of an edge-loaded axially moving band 2380  
Dynamic stability of an axially moving band 3251
- Natural frequencies in annuli with induced thermal membrane stresses 6540  
Thermally induced natural-frequency variations in a thin disk 7764
- Motohashi, K., i.  
See Teshirogi, N. 2818
- Motoki, T.  
See Endo, K. 6119
- Motomura, M.  
See Matsuura, Y. 6918
- Motovilovets, I. A.  
Stressed state of a cylinder with mixed boundary conditions of heating 5642
- Mott, G.  
See Eliot, F. C. 4166
- Moulden, T. H.  
Some comments on the conditions in a local supersonic flow region 4371
- Moulson, J. A.  
See Marto, P. J. 6417
- Moumouni, A.  
Analysis of the functional peculiarities of thermoelectric radiometers with absorbent receiver disk in steady state 1203  
The functioning of the thermoelectric radiometer with a circular absorbent receptor 2801
- Mousa, A. M.  
See Lee, S. L. 5014
- Movchan, A. A.  
Proof of some stability criteria for the equilibrium of plates 5968
- Movsesian, L. A.  
On an invariant transformation of equations of one-dimensional unsteady motion of an ideal compressible fluid 4390
- Movsisyan, L. A.  
Temperature problem for a cylindrical shell of variable length 9429  
See also Sarkisyan, V. S. 5050
- Mowbray, D. E.  
The internal wave pattern produced by a sphere moving vertically in a density stratified liquid 1151
- Mowbray, D. F.  
Fatigue-crack growth-rate studies of low-alloy pressure-vessel steels 6110  
Free vibrations of an infinite plate based on the linear coupled theory of thermoelasticity 7762
- Moxham, K. E.  
See Dwight, J. B. 9564
- Moyer, H. M.  
See Butze, H. F. 6444
- Mozharovsky, N. S.  
Residual stresses in thermal cycles and their effect on the durability of metal 6095
- Mroz, Z.  
See Kwaszczynska, K. 5893
- Mucha, Z.  
Determination of the energy input in an electric shock tube 3622  
Application of the  $\theta$ -pinch effect for generation of strong shock waves 5600
- Mueller, J. A.  
Girder web boundary stresses and fatigue 270
- Muensterer, H. F.  
Initiation of fracture in ductile metals 1727
- Muftuoglu, T.  
On the calculation of multistory frames on Winkler-foundations 9482
- Muggia, A.  
Some aerodynamics and heat transfer problems at hypersonic Mach number, with emphasis on low Reynolds numbers 5360  
On the theory of the airfoils in an incompressible jet 7156
- Mugnier, D.  
Vibrations of a circular cylindrical reservoir either empty or filled with liquid in a state of predetermined static constraint. Case of a nonhomogeneous cylinder. Comparison with experiments 4133
- Muheim, J.  
See Rathe, E. J. 9921
- Muhs, H.  
Shallow foundations 2450
- Mukhadze, L. G.  
On optimum shapes of spatial hanging structures 4261
- Mukherjee, R. N.  
See Deb, P. C. 7839
- Mukherjee, A.  
Flow of an incompressible fluid through the annular space between two concentric cylindrical walls rotating with variable angular velocities 7071
- Mukherjee, A. K.  
High-temperature-creep mechanism of TiNi 877
- Mukherjee, B.  
Growth of part-through and through-thickness fatigue cracks in sheet glassy plastics 7832
- Mukherjee, J.  
Stresses due to vibration of spherical shells of aeolotropic materials 3243  
Radial vibration of a cylindrical inhomogeneous annulus of aeolotropic materials 6839
- Mukherjee, S.  
Note on the torsional vibration of a nonhomogeneous cone with spherical caps 166  
Note on the forced torsional vibration of a nonhomogeneous cone with spherical caps twisted by periodic terminal couples 6838
- Mukherjee, S. N.  
Multiple regression analysis in evaluation of tool wear 996
- Mukhina, I. V.  
The propagation of Rayleigh waves in an elastic half-space which is inhomogeneous in two coordinates 964
- Mukhopadhyay, A.  
Stresses produced by a normal load moving over the surface of a sandy soil 3284

- Mukhopadhyay, A. (Continued)**  
On the disturbances produced in a layered viscoelastic medium by sources of finite dimensions 6892  
Stresses produced by a normal load moving over the boundary of a heterogeneous layer lying on a rigid foundation 6895
- Muki, R.**  
On the stress analysis of overlapping bonded elastic sheets 82
- Mukunda, H. S.**  
See Jain, K. V. 5526
- Mulhern, J. F.**  
Cylindrically symmetric deformations of a fiber-reinforced material 7649
- Mulholland, R. J.**  
See Honnell, P. M. 4864
- Mullamaa, Yu. A.**  
Wind waves and the effective reflecting area of the sea surface 9124
- Mullen, J. F.**  
Application of damping device for critical speed control 6861
- Muller, D.**  
The behavior of vibratory linear mechanical systems with regard to electrical compensating processes in the drive (asynchronous motor) 4147  
Periodical motions of a crank-driven oscillator and their stability 9438
- Muller, H.**  
See Lohner, K. 1262  
See Wolf, D. 8530
- Muller, H. G.**  
Dynamics of planetary mills 5174
- Muller, I.**  
On diffusion and thermal diffusion in a mixture of Maxwellian gases 8033
- Muller, P.**  
A note on axisymmetrical flutter of circular cylindrical shells of finite length 2067
- Muller, P. F.**  
The preparation of altitude charts and perspective reliefs of functions of a complex variable with an electronic computer 2209
- Muller, U.**  
Stability of a plane Couette flow in a heated nonlinear viscous liquid 9619
- Mulligan, J. C.**  
Model for heat transfer in frost and snow 3656
- Mullin, F. J.**  
Digital simulation of space missions for Monte Carlo analysis 9246
- Munchow, K.**  
See Hammeke, K. 2774
- Munday, G.**  
Dual detonation regimes in hydrogen/oxygen and deuterium/oxygen mixtures 3726  
Marginal detonation in cyanogen/oxygen mixtures 3727
- Munk, W.**  
Is the Cromwell current driven by equatorial Rossby waves? 4757
- Munse, W. H.**  
Effect of repeated loads on the low temperature fracture behavior of notched and welded plates 1002  
See also Fountain, R. S. 6108
- Munteanu, I.**  
See Anastasescu, D. 5231  
Anastasescu, D. 7889
- Munz, W.**  
Dry weather water supply in waste water disposal units 2966
- Munzberg, H. G.**  
Propulsion in flight engineering 8975  
First-stage propulsion problems of space transport vehicles 9039
- Mura, T.**  
Continuum theory of dislocations and plasticity 5905
- Murahari, V.**  
See Nagaratnam, S. 3458
- Murakami, A.**  
A study on stiffness of panel structures with openings 7718
- Murakami, Y.**  
Stress analysis on flat plates with rivet holes by the birefringent coating method 287
- Muralidhar, D.**  
See Rajaratnam, N. 374  
Rajaratnam, N. 7079  
Rajaratnam, N. 9727
- Muraoka, K.**  
Experimental study on vertical water jets to free water surface 5307
- Murata, S.**  
A study on the flow behind a centrifugal impeller: Part 1, Theoretical calculation applying potential flow theory and experiments 485
- Murata, T.**  
See Oka, S. 358  
Oka, S. 4316
- Muratov, V. I.**  
See Fedorchenko, V. D. 2849
- Muravev, S. K.**  
See Bleikhman, V. S. 5782
- Muraveva, L. D.**  
See Karpov, V. I. 1174
- Muresan, T.**  
See Szekely, I. 7018
- Murfin, W. B.**  
Dual specifications in vibration testing 6878  
See also Alzheimer, W. E. 6032
- Muriel, A.**  
New expansion procedure in non-equilibrium statistical mechanics 5453
- Murkowski, W.**  
See Jankowiak, W. 7659
- Muro, T.**  
See Hata, S. 727
- Muroaka, K.**  
Shock-wave structure in the weakly ionized plasma 1299
- Murota, A.**  
A stochastic analysis of river flow characteristics in the Kizu River Basin 9979
- See also Muraoka, K. 5307
- Murota, T.**  
See Kato, K. 9450
- Murotsu, Y.**  
The optimization of vibration absorber 6866
- Murphey, C. E.**  
See Nordgren, R. P. 5063
- Murphy, C. H.**  
Nonlinear motion of a symmetric missile acted on by a double value static moment 9762
- Murphy, G. J.**  
A frequency-domain stability chart for nonlinear feedback systems 2232
- Murphy, J. D.**  
See Rose, W. C. 3549
- Murphy, J. P.**  
See Giacaglia, G. E. O. 7350
- Murr, L. E.**  
Defect microstructure and mechanical properties in shock-hardened metals 7854
- Murray, D. W.**  
Finite-element large deflection analysis of plates 9380
- Murray, F. M.**  
Operational characteristics of a 100,000-cubic-foot acoustic reverberation chamber 1369
- Murray, J. D.**  
Singular perturbations of a class of nonlinear hyperbolic and parabolic equations 5760  
Some basic aspects of one-dimensional incompressible particle-fluid two-phase flows 6548
- Murray-Lasso, M. A.**  
See Gould, L. A. 850
- Murthy, M. G. K.**  
See Sastry, U. A. 5909  
Sarma, K. S. 9950
- Murthy, P. N.**  
A study of the creep rupture parameters 4229  
Minimum weight analysis based on structural reliability 6169
- Murthy, V. N. S.**  
See Sahoo, B. 5156
- Murty, A. S. R.**  
See Belgaumkar, B. M. 8536
- Murty, K. A.**  
Pyrolysis effects in the transfer of heat and mass in thermally decomposing organic solids 5522
- Murzewski, J.**  
Tests on models of cylindrical stiffened shells 2370  
New method of assessment of the safety of building structures 5251  
The correlation of strength characteristic and material yield conditions 6107  
The probability characteristic of the limit load of a structure made of a quasi-homogeneous ductile material 6164  
Load-carrying capacity of stiffened noncircular cylinders in bending 7716

- Musaelyan, Sh. A.**  
Solution of some inverse problems of satellite meteorology using a diagnostic equation of atmospheric dynamics 6567
- Musalimova, R. S.**  
Investigation of the stability of a two-blade lifting rotor on an anisotropic elastic base 1679
- Musen, P.**  
Application of Hansen's method to the Xth satellite of Jupiter 6493
- Mushenko, P. M.**  
The determination of the coefficient of turbulent exchange according to the contour of smoke plumes from factory chimneys 9134
- Musil, J.**  
Plasma lenses 4606
- Mustata, P.**  
Poisson representation of the solutions of a Cauchy problem in the best transfer equation 15
- Muster, D.**  
International standardization in mechanical vibration and shock 5072
- Musterle, T.**  
The calculation of water levels without parameters for side weirs 7036
- Mustin, G. S.**  
Theory and practice of cushion design 9448
- Muszynska, A.**  
An analysis of the motion of a shaft with nonlinear characteristic of elasticity and damping 9416
- Muthiah, P. L.**  
Mechanical properties of skins, hides and constituent fibers 754
- Muto, S.**  
See Nakaguchi, H. 2701
- Muto, T.**  
See Ito, T. 7938
- Muzzy, R. I.**  
See Brown, R. S. 2828
- Myasnyankin, Yu. M.**  
See Bykovtsev, G. I. 6738
- Myers, C. D.**  
See Nevill, G. E., Jr. 6742
- Mykiska, A.**  
Utilization of cam in feed-back of pneumatic drive for linearizing control element 5255
- Mylonas, C.**  
Notch brittleness after pretraining 5187
- Myreen, B.**  
An approximate method for time-dependent heat-conduction calculations using a transfer function 1208
- Myring, D. F.**  
The isobars in boundary layers at supersonic speeds 8000
- Myshkis, A. D.**  
See Blekhan, I. I. 766
- Myshkov, S. K.**  
Stabilization of programed motion in control systems with incomplete information 6654
- Myslivec, A.**  
Effect of adjacent foundations on bearing capacity 9483
- Mysovskii, Yu. V.**  
See Kosmodamianskii, A. S. 6717
- N**
- Na, T. Y.**  
Transforming boundary conditions to initial conditions for ordinary differential equations 1456
- Nabatov, V. G.**  
See Kostylev, V. M. 2769
- Naboko, I. M.**  
An investigation of the state of a gas behind a shock wave on the basis of the pattern of flow around an obstacle placed in a shock tube 512
- Nachbar, W.**  
See Bhatia, N. M. 1622  
Huang, N. C. 1653  
Huang, N. C. 4112  
Bhatia, N. M. 5916
- Nachtsheim, P. R.**  
Analysis of the stability of a thin liquid film adjacent to a high-speed gas stream 2723
- Naemura, A.**  
Temperature dependence of complex moduli of polymer materials 5649  
Dynamic viscoelasticity of plasticized epoxy resins 6733
- Nag, D. K.**  
See Cheung, Y. K. 7866
- Nagaev, R. F.**  
Synchronous motions in a system of objects with supporting constraints 6698
- Nagai, F.**  
See Sato, Y. 882  
Sato, Y. 4217
- Nagai, S.**  
Pressures of partial standing waves 2967
- Nagamoto, R.**  
See Mori, M. 6186
- Nagao, F.**  
Effect of crankcase volume and the intake system on the delivery ratio of two cycle engines 3742  
Relation between valve angle-area and low speed performance of a uniflow-scavenged engine 8969
- Nagaraja, K. S.**  
Free molecular flow through a circular tube of finite length 2644
- Nagaratnam, S.**  
Submerged hydraulic jump in trapezoidal channels 3458
- Nagashima, A.**  
See Tanishita, I. 8890
- Nagel, R.**  
Pneumatic conveyance: Its limits, and power requirements 694
- Naghdi, P. M.**  
See Green, A. E. 1633  
Green, A. E. 2328  
Green, A. E. 3109
- Green, A. E.** 3142  
**Crochet, M. J.** 3842  
**Green, A. E.** 5007  
**Green, A. E.** 5846  
**Green, A. E.** 6215  
**Green, A. E.** 6741
- Nagibin, L. N.**  
Stressed state of an anisotropic plate with two circular holes 101
- Nago, H.**  
See Iwasa, Y. 6235
- Nagornov, L. N.**  
Random oscillations of plates in a supersonic turbulent flow of gas 9456
- Nagorny, F. M.**  
See Ibraimov, D. I. 1500
- Nagraj, D.**  
See Srivastava, P. N. 6218
- Naguleswaran, S.**  
Lateral vibration of a pipe conveying a fluid 1672  
Lateral vibration of band-saw blades, pulley belts and the like 4126
- Nagumo, J.-I.**  
A learning method for system identification 2236
- Nagy, B.**  
A method of calculation for sector membrane shells 4066
- Nahi, N. E.**  
Optimum terminal control of continuous systems via successive approximation to the reachable set 3984
- Naidu, P. R.**  
Application of root-locus concept to a class of nonlinear systems for time solution 3039
- Nainis, V. K.**  
See Klyuchininkas, A. Yu. 4673
- Nair, B. G.**  
Heat transfer and pressure drop characteristics of crossed tube heat exchangers 7276
- Najar, J.**  
Polar-like rapid plane flows of a perfectly plastic material 2335  
Problems of plane rapid flows of a perfectly plastic material with polar-like velocity fields 3141  
Simple waves in plane flow of a perfectly plastic material 9475
- Nakabayashi, K.**  
See Yamada, Y. 5725
- Nakabori, H.**  
See Suzuki, H. 2737
- Nakada, G.**  
See Tajima, K. 1110
- Nakagawa, K.**  
Relations between deformation method and reduction method in the structural analysis 1033  
See also Murotsu, Y. 6866  
Niwa, Y. 9212
- Nakagawa, T.**  
Plastic fatigue life of steel subjected to a multiple repeated stress under rotary bending 6949

- Nakagawa, Y.**  
The relation between the recovering strain and the modulus of elasticity in reheating times of high-polymer material 4715  
*See also Matsukawa, Y.* 1314
- Nakaguchi, H.**  
An experimental study of aerodynamic drag of rectangular cylinders 2701
- Nakahara, I.**  
*See Shibuya, T.* 5117  
*Shibuya, T.* 9472
- Nakai, Y.**  
A new method of tensile testing and tensile properties under high pressure 6153
- Nakamizo, T.**  
*See Sawaragi, Y.* 9454
- Nakamura, H.**  
Resonant frequency of a stepped-cantilever 179
- Nakamura, I.**  
*See Furuya, Y.* 444
- Nakamura, K.**  
Tooth separations and abnormal noise on power-transmission gears 1773
- Nakamura, M.**  
*See Tozawa, Y.* 6079
- Nakamura, T.**  
The strain rate dependence of tensile properties of the mild steel at low temperature 6544  
*See also Tanabashi, R.* 3394
- Nakamura, Y.**  
Reflection and transmission of acoustic waves from and through a transition zone 2105
- Nakano, A.**  
A comparison between underwater sounds from boats driven by hydrojet and by propeller 6516  
The effects of malalignment on the aeroelastic behavior of unguided rockets 7339
- Nakao, K.**  
*See Suzuki, H.* 7182  
*Suzuki, H.* 8866
- Nakashima, H.**  
*See Furuya, Y.* 5666
- Nakaya, C.**  
Nonlinear stability of liquid flow down an inclined plane 1824
- Nakayama, K.**  
Size effect in metal-cutting force 2469  
An accurate measurement of the mercury vapor drag effect in the pressure region of transition flow 8036
- Nakayama, T.**  
Possible definition of entropy for weak turbulence in plasmas 4597
- Nakayama, W.**  
Forced convective heat transfer in a straight pipe rotating around a parallel axis (2nd report, turbulent region) 4507  
*See also Mori, Y.* 8055  
*Mori, Y.* 8907
- Nakhman, Yu. V.**  
*See Blokh, A. G.* 5662
- Nakra, B. C.**  
*See Pujara, K. K.* 8534
- Namba, M.**  
Theory of lifting-lines for cascade of blades in subsonic shear flow 8019
- Namba, S.**  
Measurement of thermal diffusivity by the laser flash method 3651
- Nambudiripad, K. B. M.**  
Some problems of beams on elastic foundations solved by collocation method 3161
- Namitokov, K. K.**  
Some peculiarities of the sliding contact in transformer oil 8283
- Nanda, J.**  
Analysis of steady state stability by Lyapunov's method 3046
- Nandi, S. B.**  
Effect of non-normality on the average percentage saving in a sequential test for mean 8326
- Narasimha, R.**  
Nonlinear vibration of an elastic string 6810
- Narasimhan, A. K.**  
Circular slabs supported on concentric ring-beams 2377
- Narayana Iyengar, R.**  
*See Sundara Raja Iyengar, K. T.* 187
- Narayanan, R.**  
Pressure fluctuations in reattaching flow 9626
- Narayanan, S.**  
*See Guha, D. K.* 6226
- Nardini, G.**  
*See Nencetti, G. F.* 3833
- Nardizzi, L. R.**  
Optimization of discrete-time systems with combined modulation 846
- Narendra, K. S.**  
*See Cho, Y.-S.* 4868
- Narets, L. K.**  
Flexure of beams in the case of large strains 9340
- Narinyani, A. S.**  
*See Kotov, V. E.* 790
- Narjes, O.**  
A method for specifying the conditions for the appearance of optimal singular controls in linear autonomous variational problems 844
- Naruoka, M.**  
*See Nakagawa, Y.* 1033
- Narutaki, N.**  
*See Okushima, K.* 9510
- Nash, D. M., Jr.**  
Geoacoustic applications of electro-seismic sources 5684
- Nashed, M. Z.**  
Some variants of a fixed point theorem of Krasnoselskii and applications to nonlinear integral equations 9182
- Nashif, A. D.**  
Development of practical tuned dampers to operate over a wide-temperature range 6020  
*See also Cannon, C. M.* 5100
- Nasonkin, V. D.**  
Stress distribution in a statically inhomogeneous elastic half-space 9298
- Nastase, A.**  
*See Carafoli, E.* 1878  
*Carofoli, E.* 2693
- Natarajan, R.**  
Heat absorption characteristics of anodized and blackened aluminum 6411
- Natesan, T. R.**  
Transient descriptors determining the performance of linear and nonlinear systems 3033  
Analytical approach to control system synthesis 9239
- Nath, B.**  
An analog technique for determining torsion and flexure functions of uniform beams 8451
- Nath, G.**  
Three-dimensional flow in axial fans with prescribed blade loading 3603
- Nathan, G. K.**  
Influence of the hardness of abrasives on the abrasive wear of metals 3874
- Natke, H. G.**  
Remarks on the approximate solution of the classical flutter problem 9891
- Nauman, V.**  
*See Filippov, G. A.* 5442
- Naumova, I. N.**  
Increase in nozzle thrust by flow rotation 4577
- Navari, R. M.**  
Prediction of the Sigma effect in blood flow 7472
- Navrotskii, I. V.**  
*See Baguzin, V. I.* 8619
- Nayak, G. C.**  
*See Jain, V. K.* 9584
- Naylor, A. W.**  
*See Kawamura, K.* 6646
- Naylor, D.**  
On a singular eigenvalue problem 3014
- Nayudamma, Y.**  
*See Muthiah, P. L.* 754
- Nazarczuk, K.**  
*See Morecki, A.* 10005
- Nazarenko, A. I.**  
Certain problems in optimizing the handling of orbital measurements of artificial Earth satellites 9907
- Nazarenko, P. V.**  
Investigation of the correlation between elastic and plastic components of deformation during friction of crystal bodies 6962
- Nazarov, G. I.**  
An analytic solution of a system of equations for the axisymmetrical flow of an incompressible fluid 3481  
Approximate solution of the fundamental boundary-value problems of supersonic gas dynamics by the Bergman method 9668



- Nazarov, N. I.**  
Solution of heat conductivity problems with nonlinear boundary conditions 4502
- Nazarova, L. I.**  
Dispersion equation of a plane ejector 1822
- Naziev, E. H.**  
On a generalization of the theorem of areas 71
- Naziri, H.**  
The effect of plastic anisotropy on flange-wrinkling behavior during sheet metal forming 6911
- Neal, A. S.**  
*See Erdmann, R. L.* 7519
- Neal, B. G.**  
Structural theorems and their applications 2522  
Limit load of a cantilever in plane stress 7877
- Neal, S. R.**  
Linear estimation in the presence of errors in assumed plant dynamics 1483
- Nealy, J. E.**  
*See Grose, W. L.* 1179
- Nebbeling, C.**  
*See Bannink, W. J.* 9679
- Nece, R. E.**  
The suction manifold as a water jet pump 495
- Nechiporenko, V. A.**  
Calculating the temperature of the oil film in friction bearings 1429
- Nedumov, N. V.**  
Large bending deflections of trapezoidal plates with constrained edges 6761
- Nee, V. W.**  
Simple phenomenological theory of turbulent shear flows 9734
- Needham, F. H.**  
*See Wood, R. H.* 6181
- Needham, G.**  
*See Caddell, R. M.* 2465  
*See Johnson, W.* 6084  
*See Johnson, W.* 8611
- Negroni, F.**  
Plastic instability in simple stretching of sheet metals 4974
- Neidhardt, G. L.**  
*See Fugelso, L. E.* 7797
- Neihus, G.**  
Investigation of flow patterns around several objects in a shallow water table 7522
- Neilson, J. E.**  
*See Modi, V. J.* 4646  
*See Modi, V. J.* 9035
- Neilson, J. H.**  
Side thrust control by secondary gas injection into rocket nozzles 2835  
An experimental investigation into aspects of erosion in rocket motor tail nozzles 4575  
An analytical and experimental investigation of the velocities of particles entrained by the gas flow in nozzles 5351
- An analytical and experimental investigation of the trajectories of particles entrained by the gas flow in nozzles 7112
- A theory for the side force produced in two-dimensional nozzles by secondary gas injection 7115
- Control forces in rocket nozzles produced by a secondary gas stream inclined at various angles to the nozzle axis 8974
- Neimark, Yu. I.**  
Stability of control and noncontrol of a bicycle and a motorcycle 3951
- Nelkin, M.**  
*See Ranganathan, S.* 2107
- Nelson, C. W.**  
Transient axially symmetric excitation of a circular elastic rod in plane strain 6028  
The ramp unloading case of transient axisymmetric excitation of a circular elastic rod in plane strain 8567
- Nelson, D. A.**  
Effects of intersignal interval on the human auditory evoked response 5749
- Nelson, H. M.**  
Definition and relation of statistical functions by means of matrices 8325
- Nelson, M. F.**  
*See Weaver, W., Jr.* 7899
- Nelson, P., Jr.**  
Minimizing the natural fuel requirement for nuclear reactor power systems: A nonstandard optimal control problem 3752  
A class on nonstandard optimal control problems with application to nuclear reactor economics 6688
- Nelson, R. C.**  
*See Dillman, C. J.* 3888
- Nelson, S. W.**  
*See Howard, R. L.* 1928
- Nelson, W. L.**  
An application of computer-aided design methods to the near-optimal control of a damped, second-order system 7565
- Nemat-Nasser, S.**  
On elastic, workhardening solids 2337  
On the energy concepts in the theory of elastic stability 3193  
Finite expansion of a hole in a rigid workhardening disk of initially nonuniform thickness 4969  
On local stability of a finitely deformed solid subjected to follower type loads 5036  
On the response of shallow thin shells to random excitations 6835  
On circulatory force fields and their adjoints 8163  
*See also Chern, J.-M.* 4064  
*See Chern, J.-M.* 8677
- Nemeth, F.**  
Approximate of reinforced concrete circular barrel shells 9573
- Nemirovskii, Yu. V.**  
Limit analysis of cylindrical waffle shells 1641
- Nemoto, S.**  
Similarity between natural local wind in the atmosphere and model wind in a wind tunnel 8250
- Nemytskii, V. V.**  
Theory of ordinary differential equations during 50 years: 1917-1967 2180
- Nencetti, G. F.**  
Operation of bubble plate columns: Part 1, Fluid dynamic behavior of a bubble plate 3833
- Nendli, D.**  
A theoretical treatment of the Tesla friction pump 4448
- Nepomniashchaia, I. A.**  
Estimating the existence domain of a limiting cycle of a class of dynamic systems with a cylindrical phase space 9409
- Nerem, R. M.**  
*See Carlson, L. A.* 4416  
*See Golobic, R. A.* 6404
- Neshumayeva, T. A.**  
*See Zarusky, V. A.* 5637
- Ness, N.**  
A spherical piston problem including the effects of equilibrium chemistry 7297
- Nesterenko, V. G.**  
*See Kopelev, S. Z.* 9790
- Nesterov, S. V.**  
Surface wave interaction 1152
- Netushil, A. V.**  
*See Belova, D. A.* 5807
- Neu, H. A.**  
Transverse flow in a river due to Earth's rotation 8245
- Neuber, H.**  
A physically nonlinear notch and crack model 4025  
On the effect of stress concentration in Cosserat continua 5869  
Film of a viscous liquid on a rotating surface of revolution 6253
- Neuberger, J. W.**  
Tensor products and successive approximations for partial differential equations 5761
- Neubert, H. K. P.**  
Strain gages: Kinds and uses 1019
- Neumann, D. B.**  
Holography of moving scenes 1021
- Neumann, J.**  
Spectrum of isotropic turbulence 457
- Neumann, P.**  
Graphical representation of stress distributions and of the forces on dislocations 8442  
Strain bursts and coarse slip during cyclic deformation 9522
- Neumann, W.**  
Determination of flowing gas parameters, based on the experiments with argon plasma stream produced by a stretched arc 2879
- Neumayer, F.**  
Approximate calculation of wall-like bars with edge stiffeners 7717
- Neuringer, J. L.**  
Derivation of the spectral density function of the energy scattered from an underdense turbulent wake 9738

- Neustadt, L. W.**  
See Halkin, H. 2263
- Nevelson, M. B.**  
Behavior of a linear system under small random excitation of its parameters 6663
- Nevill, G. E., Jr.**  
Studies of parameter significance in shell-liquid impact 1913  
Strain rate effects during reversed loading 6742
- Neville, A. M.**  
Modern view of creep of concrete 4041  
See also Ghali, A. 322
- Newberg, E. A.**  
See Arnason, G. 5393
- Newberry, C. W.**  
The response of buildings to sonic boom 329
- Newbold, P. M.**  
See Ho, Y. C. 3986
- Newburg, E. A.**  
See Arnason, G. 3852
- Newcomb, R. W.**  
A distributional approach to time-varying sensitivity 5816
- Newell, A. C.**  
Rossby wave packet interactions 8838  
See also Benney, D. J. 3576
- Newell, J. A.**  
An ultrasonic radiation pressure balance 1368
- Newman, B. G.**  
A proof of the Biot-Savart law 630
- Newman, B. G.**  
Theoretical analysis of an internally-braced two-dimensional air strut which is partially buckled 7733  
See also Wygnanski, I. 5306
- Newman, D. J.**  
See Klamkin, M. S. 2890  
Klamkin, M. S. 3097
- Newman, J. C., Jr.**  
See Figge, I. E. 280
- Newman, M.**  
See Ojalvo, I. U. 6780
- Newman, R. K.**  
Multifrequency response of viscoelastic dampers 6865
- Newman, R. W.**  
A constant-temperature water bath calorimeter for measuring extremity heat loss 4807
- Newmark, N. M.**  
Dynamic behavior of reinforced and prestressed concrete buildings under horizontal forces and the design of joints (incl. wind, earthquake, blast effects) 327
- Newton, A.**  
See Hearle, J. W. S. 141
- Newton, J. F.**  
Observables testing of ablative materials 7283
- Newton, R. E.**  
See Brock, J. E. 8509
- Ney, K.**  
Effect of ambient air pressure on the spray characteristics of swirl atomizers 2127  
Measuring method for the spray characteristics of a fuel atomizer at various conditions of the ambient gas 7411
- Nez, P.**  
Velocity and temperature pattern measurement on a "hot" model of a steam generator for Creil-Saint-Leu power station 5534
- Ng, S.**  
The behavior of parallelogrammic panels with large deflections 1650
- Nguyen, H. D.**  
See Sander, G. 7873
- Nibbering, J. J. W.**  
Considerations about the use of higher strength steels in shipbuilding 4288
- Niblett, L. T.**  
Methods of solving the flutter equations in use at R.A.E. 9892
- Nichiporenko, O. S.**  
See Fedorchenko, I. M. 4724
- Nicholas, D.**  
See Scott, R. A. M. 5209
- Nicholas, M.**  
The adhesion of metal/alumina interfaces 5716
- Nicholas, T.**  
The effects of rotatory inertia and shear deformation on the flexural vibrations of a two-layered viscoelastic-elastic beam 6814
- Nicholls, J. A.**  
See Ragland, K. W. 5620  
Cheslak, F. R. 7066  
Selberg, B. P. 7076
- Nicholls, J. I.**  
Linear programming and optimal structural design 2530
- Nicholls, R. L.**  
Design and testing of cone and hypar footings 6064
- Nichols, L. D.**  
Design and preliminary operation of the Lewis magnetohydrodynamic generator facility 2059  
Comparison of Brayton and Rankine cycle magnetogasdynamic space-power generation systems 8148
- Nichols, R. J.**  
Thermal and ablative lag induced by a periodic heat input 6426
- Nichols, R. W.**  
See Fearnough, G. D. 9556
- Nicholson, H.**  
Integrated control of a nonlinear turbo-alternator model under fault conditions 48  
Control of sequential subsystem interconnected with transport delays 3057  
Hierarchical control of a multimachine power system model 7564
- Nicholson, J. E.**  
Blast wave entry and exit 8860
- Nickell, R. E.**  
Variational principles for linear coupled thermoelasticity 9948
- Nickerson, E. V.**  
Boundary layer adjustment as an initial value problem 2652
- Nickerson, J. L.**  
A study of internal movements of the body occurring on impact 3895
- Nicol, A. A.**  
Free convection heat transfer from helically-finned tubes 546
- Nicolas, J.**  
Casting methods for voluminous blocks of araldite "D" for use in photoelastic measurement 5200  
Tests of throats made of refractory materials impregnated with a melting metal 5655
- Nicolas, J.-J.**  
See Kohn, S. 2002
- Nicolau, E.**  
Neurocybernetics models of motor instruction 3898
- Niedzwiecki, M.**  
On truncation techniques in analysis of linear periodically time-varying networks 1480
- Niehuis, G.**  
Investigations of flows about models of aerodynamic bodies in a hydraulic analogy tank 795
- Neild, D. A.**  
The Rayleigh-Jeffreys problem with boundary slab of finite conductivity 3673
- Nielsen, J. P.**  
Thickness design procedure for cement-treated sand bases 7814
- Nielsen, L. F.**  
Effects of creep in uncracked composite structures of steel and concrete 7641  
Creep of concrete under a multi-axial state of stress 8425
- Nielsen, R. L.**  
See Spillette, A. G. 9111
- Nien Hu, P.**  
See Ziering, S. 4488
- Niesytto, J.**  
Supersonic flow with heat sources through a deformable cylindrical shell 477
- Nieuwland, G. Y.**  
Transonic potential flow around a family of quasi-elliptical airfoil sections 2619
- Nigam, N. C.**  
Calculation of response spectra from strong-motion earthquake records 9115
- Nigam, S. D.**  
Differential rotation of a sphere in a viscous liquid 5293  
See also Vidyandhi, V. 7960
- Nighan, W. L.**  
Low-energy electron momentum transfer collisions in cesium plasmas 615

- Nightingale, J. M.  
See Tzafestas, S. G. 6685  
Tzafestas, S. G. 6686
- Nigmatulin, R. I.  
Converging cylindrical and spherical detonation waves 5622
- Nigul, U.  
Three-dimensional shell theory of axially symmetric transient wave in a semi-infinite cylindrical shell On the application of methods of three-dimensional analysis to problems of propagation of transient plane bending waves in elastic plates: Part I 4167 8570
- Nihoul, J. C. J.  
Hamiltonian description of irreversible stationary phenomena and elements of a turbulence theory 1127
- Niiler, P. P.  
The theory of free inertial jets: Part 2, A numerical experiment for the path of the Gulf Stream 6560
- Niimi, H.  
Two-dimensional steady MHD jet under the influence of thermal radiation 4602
- Nikiforenko, Zh. G.  
See Budenkov, G. A. 1593
- Nikiforov, A. D.  
See Jain, P. L. 1053
- Nikiforov, A. S.  
Impedance of an infinite plate with respect to a force acting in its plane 6023
- Nikiforuk, P. N.  
Frequency response analysis of two-dimensional nonlinear symmetrical control systems 1488  
A bibliography on the properties, generation and control system applications of shift-register sequences 9254
- Nikitenko, N.  
A finite difference method for integrating the boundary layer equations for the external and internal flow of a compressible fluid 8806
- Nikitenko, N. I.  
Investigation of heat transfer during change in the state of aggregation of a system 4481
- Nikitin, A. K.  
The three-dimensional Cauchy-Poisson problem for waves on the surface of a viscous liquid of finite depth 467  
Application of Kolmogorov's equations to analysis of stochastic processes in systems with variable structure 5812
- Nikitin, L. V.  
See Kostrov, B. V. 9473
- Nikitin, N. V.  
See Dunsii, V. G. 5663
- Nikitin, V. I.  
A parametric method for determining the creep characteristic of metals 4040
- Nikolaev, Yu. M.  
Propagation vertically upwards of an acoustic wave, taking viscosity into account 9067
- Nikolaevskii, V. N.  
Relation between plastic volume and shear deformations and shock waves in soft soils 8585
- Nikolayev, G. N.  
Calculation of the recombination rate constants of diatomic gases according to the Mach number of the flow at the exit of a supersonic nozzle 5361
- Nikolich, A. S.  
Stresses in cylinders subjected to internal pressure on a portion of length 4080
- Nikolskii, A. A.  
Uniform shear motions of a rarefied monatomic gas 2643
- Nikulinskaya, S. N.  
See Kilchevskii, N. A. 7745
- Nilsen, R. N.  
Hybrid simulation of a variable transport lag 7546
- Nilson, A. H.  
Nonlinear analysis of reinforced concrete by the finite element method 8690
- Nimi, H.  
Thermal creep flow of rarefied gas through a cylindrical tube 433
- Nimmo, B.  
See Leppert, G. 1243
- Niollet, M.  
See Brossard, J. 7296
- Nishchenko, I. A.  
See Vushko, V. P. 8395
- Nishi, M.  
See Senoo, Y. 4444  
Tanimoto, K. 6057
- Nishida, K.  
See Matsuo, S.-i. 6076
- Nishikawa, K.  
Parametric excitation of coupled waves: Part I, General formulation Studies on boiling characteristics curve 4159 4539  
See also Kusuda, H. 4540
- Nishikawa, Y.  
A method for stability investigation of a periodic dynamic system with many degrees of freedom 8562
- Nishimura, S.  
See Nishioka, K. 4231
- Nishino, F.  
Residual stress and torsional buckling strength of H and cruciform columns 9388
- Nishino, Y.  
See Taira, S. 8660
- Nishioka, K.  
Fundamental investigations of fretting fatigue: Part I, On the relative slip amplitude of press-fitted axle assemblies 4231
- Nishitake, S.  
Delamination grinding of coarse kaolin by means of the vibration mill 9961
- Nishiura, T.  
On an existence theorem for optimal control 55
- Nishiwaki, N.  
See Kato, H. 7244
- Nishiyama, A.  
See Inoue, J. 1379
- Nishiyama, T.  
Potential flow model of cavity end for a symmetrical wedge 1809  
Wave patterns on the water surface of extremely shallow depth 9770
- Nishiyama, U.  
A study of the utilization of generated energies in hydro-spark forming and explosive forming Behaviors of super duralumin (24S) just after quenching and after age-hardening under dynamic compression testing 6093 9552
- Nisitani, H.  
The two-dimensional stress problem solved using a digital computer 3108  
Nonpropagating crack and crack strength of shafts with a shoulder fillet subjected to rotary bending Method of approximate calculation for interference of notch effects and its application 4236 6715  
Crack propagation in low cycle fatigue of 7:3 brass specimens under reversed bending 6946  
Effects of size on the fatigue limit and the branch point in rotary bending tests of carbon steel specimens 8637
- Nisnevich, L. B.  
Organization of structures and estimates of parameters of automated control systems 6670
- Nissan, A. H.  
Drying of sheet materials 2810
- Nissel, N. B.  
See Davis, S. 5741
- Nissim, E.  
On a specialized case of the Routh-Hurwitz stability criteria 8527
- Nitu, C. I.  
Method for improving the performances of control systems with digital controllers 2242
- Nitusov, V. V.  
See Samoilovich, G. S. 9788
- Niu, K.  
Collisionless shock wave in a plasma 1302
- Niwa, Y.  
The influence of end frictions on stresses in compressed specimens 9212
- Nixdorff, K.  
Stability of helical bars for conservative axial loads 5041
- Nixon, W. B.  
See Sweeney, T. E. 9899
- Niyazov, S.  
See Gitis, M. B. 9062
- Noack, D.  
Studies on the dynamic fatigue behavior of wood at alternating tensile load: Part I, Principle of the fatigue test as a static relaxation test with superimposed dynamic relaxation 8664

- Noble, F. W.  
Dual frequency ultrasonic fluid flowmeter 5448
- Nobukawa, H.  
See Kawakami, M. 6185
- Noda, A.  
See Nagumo, J.-I. 2236
- Noges, E.  
See Onyshko, S. 9262
- Nohel, J. A.  
See Miller, R. K. 7494  
Miller, R. K. 7495
- Noll, W.  
Inhomogeneities in materially uniform simple bodies 5877  
Materially uniform simple bodies with inhomogeneities 6699  
Continuum theory of inhomogeneities in simple bodies: A reprint of six memoirs 6747
- Nolle, H.  
On the capability of the four-bar mechanism as a function generator 1783
- Nomofilov, E. V.  
See Kashcheev, V. M. 1130
- Nonweiler, T. R. F.  
The numerical evaluation of curvilinear integrals and areas 7513  
See also Hesselgreaves, J. E. 3621
- Noonan, W. E.  
Frequency analysis of repetitive bursts of random vibration 6875
- Noordergraaf, A.  
See Pollack, G. H. 6587
- Nordby, G. M.  
See Bert, C. W. 9394
- Nordgren, R. P.  
Elastic stability of circular tubes of circumferentially variable thickness under external pressure 5063
- Nordlund, B.  
Use of articulation tests in auditorium studies 2106
- Nordon, P.  
The role of axial dispersion in heat transfer in fiber beds 4746
- Noren, B.  
Nailed joints: Their strength and rigidity under short-term and long-term loading 1057
- Norey, P. W.  
See Michael, D. H. 4357
- Norkin, S. P.  
Strain distribution in glue joints of polyester fiberglass 4243
- Norris, D. O.  
Lagrangian saddle points and optimal control 2261
- Norris, W. T.  
End region of a single-load cross-connected MHD generator 9886
- Northam, G. B.  
Effects of steady-state acceleration on combustion characteristics of an aluminized composite solid propellant 3733  
Experimental investigation of the effect of aluminum size and loading on the burning rate of solid propellants under acceleration 9847
- Norwood, F. R.  
Propagation of transient sound signals into a viscous fluid 4694
- Norwood, J., Jr.  
Causes of magnetic-field nonuniformity and its effect on stability of theta-pinch plasma 7317  
See also Cilliers, W. A. 3772
- Noton, A. R. M.,  
Numerical computation of optimal control 3979
- Nottrott, R.  
Pontryagin's maximum principle for a constrained system of ordinary differential equations 3915
- Nougaro, J.  
See Coulomb, R. 7046
- Novak, M.  
A statistical solution of the lateral vibrations of cylindrical structures in air flow 198
- Novak, O.  
A contribution to the problem of determination of ultimate load of rigid frame structures 1041  
Flow in the entrance region of a supersonic cascade 9786
- Novatskii, V.  
Couple stresses in thermoelasticity 5636
- Novikov, E. A.  
Kinetic equations for a vortex field 1129
- Novokreshchenova, L. A.  
Method of calculation for stability 9386
- Novoselov, V. S.  
Optimum construction of an elliptical orbit with compound boundary conditions 9272
- Novotny, B.  
Some remarks on the asymptotic integration of the three-dimensional equations of shells and plates 7682
- Novotny, J. L.  
Radiation interaction in nongray boundary layers 9830
- Novozhenin, V. D.  
See Konviz, V. S. 3399
- Novozhilov, A. V.  
See Kudryavtsev, E. P. 5139
- Novozhilov, I. V.  
Drifts of a triaxial power gyrostabilizer depending on the disposition of gyroblocks on a platform 3965  
Automatic orientation of a solid body 9278
- Novozhilov, V. V.  
See Kadashevich, Yu. I. 8444
- Nowacki, P. J.  
Recent developments in the direct conversion of heat into electricity by means of magnetohydrodynamic electrical power generation 5594
- Nowacki, W.  
Problem of linear coupled magneto-thermoelasticity: Part 2, Variational formulation for magneto-thermoelasticity 1372
- Certain dynamic problems of thermoelasticity: Part 3 2120  
On the completeness of stress functions in asymmetric elasticity 7602  
Engineering mechanics in Poland 8398  
Propagation of elastic waves in a micropolar cylinder: Parts 1 and 2 8571  
Green functions for micropolar elasticity 9294  
Green functions for micropolar thermoelasticity 9941  
Remarks on the solutions for some dynamic problems of thermoviscoelasticity 9954  
See also Kaliski, S. 1701  
Nowacki, W. 8571
- Nowak, E. S.  
The influence of small volume changes on a measurement of  $C_{TV}$  1955
- Nowak, H.  
Experience gained at dimensioning came for valve control mechanisms 2549
- Nowak, M.  
On certain properties of natural vibrations of an elastic free-free body 6795
- Nowakowski, J. K.  
Influence of leakage loss in seals of regenerator upon cycle efficiency of turbine engine 8106
- Nowinski, J. L.  
Thermal waves in an elastic highly stretched cylindrical bar 9947
- Nuller, B. M.  
A mixed boundary value problem of the torsion of an elastic cone 4945
- Numata, E.  
See Maniar, N. M. 4287
- Nunge, R. J.  
See Gill, W. N. 6421
- Nusinov, M. D.  
A comparative estimation of coefficients of friction between metal and rocks in the air and in a super-high vacuum 6578
- Nuti, M.  
Computing vibrations on turbomachinery by transfer matrix method 6856
- Nuttli, O. W.  
See Ibrahim, A.-B. K. 1383
- Nuyens, J.  
See Verdeyen, J. 2449
- Nyashukaitis, V. V.  
See Lavrinovich, M. M. 3052
- Nyborg, W. L.  
Radiation pressure on a vibrating hemispherical meniscus 9052
- Nyeland, C.  
Adiabatic excitation transfer in gases: Effect on transport 4492
- Nyffeler, H.  
Bending moments in rectangular plates under line loads 7677
- Nygaard, K. J.  
Generation and detection of acoustic waves in pulsed electrical discharges 5590
- Nylander, H.  
Deep beams: Part 3, Strength at supports 1615  
Deep beams: Part 5, Synoptic considerations on design 1617



- Nylander, H.** (*Continued*)  
Effect of initial deformations (initial lateral deflection and initial angle of rotation) on dimensioning with regard to lateral buckling 8498  
I-beam with initial stresses and initial deflection submitted to eccentric compressive normal force. Lateral bending: Estimate from a treatment of an idealized cross section 9390
- Nylander, J.-O.**  
Deep beams: Part 4, Beams subjected to loads acting on bottom flanges 1616
- Nypan, L. J.**  
Two-dimensional evaluation of a plane of rotation 4917
- Oates, G.**  
Effect of hydrostatic stress on cleavage fracture in a mild steel and a low-carbon manganese steel 4222
- Obataya, Y.**  
*See Shiratori, E.* 6118
- Oberai, M. M.**  
Mott-Smith distribution and solution of kinetic equations 432
- Oberg, C. L.**  
A study of T-burner behavior 2826
- Oberman, C.**  
*See Rogister, A.* 3776
- Obermeier, F.**  
Exact similarity transformation solutions of approximate nonlinear differential equations for supersonic flow around plane and axisymmetric bodies 5321
- Obrian, V.**  
*See Lowe, J., III* 7802
- O'Brien, E. E.**  
Closure for stochastically distributed second-order reactants 9798
- O'Brien, W. T.**  
Behavior of loaded cable systems 6977
- Obukhovskiy, V. G.**  
*See Ibraimov, D. I.* 1500
- Ocheltree, S. L.**  
*See Weinstein, L. M.* 2747
- Ochi, M. K.**  
Ship slamming: Hydrodynamic impact between waves and ship bottom forward 8267
- O'Connor, J. J.**  
Standard handbook of lubrication engineering 9991
- Oda, J.**  
*See Shibahara, M.* 8399
- Odar, F.**  
Unsteady motion of a sphere along a circular path in a viscous fluid 7049
- Oden, J. T.**  
Finite strains and displacements of elastic membranes by the finite element method 7672  
Mechanics of elastic structures 9336  
*See also Wempner, G. A.* 5933
- Odintsov, A. A.**  
*See Pavlovskii, M. A.* 6697
- Odintsov, A. O.**  
Dynamic singularities of a damped gyroscope 8389
- Odivanov, L. N.**  
Calculation of the characteristics of a radial-axial stage 8109
- Odnoral, L. G.**  
Application of the theorem of reciprocity of action to the problem of the oscillations of plates with a physical nonlinearity 6004
- O'Donoghue, J. P.**  
*See Lines, D. J.* 4784
- Oehlschlager, W. K.**  
*See Garrett, R. L.* 5325
- Oehman, W. I.**  
Bodies of revolution having minimum total drag in hypersonic flow 9759
- Oertel, G. K.**  
*See Cilliers, W. A.* 3772
- Oettinger, P. E.**  
A unified treatment of the relaxation phenomenon in radiating argon plasma flows 621
- Oganesian, L. A.**  
*See Bodiakov, G. I.* 2169
- Ogarkov, B. I.**  
Thermal conditions in nonmetallic sleeve bearings 534
- Ogawa, H. S.**  
*See Bernstein, W.* 1295
- Ogawa, K.**  
On the rotational conditions of the spatial four-bar mechanisms 348  
Synthesis of spatial four-bar mechanisms: Part 1, Classification of mechanisms and synthesis of a mechanism with two revolute pairs, one cylindric pair and one spheric pair; Part 2, Synthesis of mechanisms with two spheric pairs 4297  
*See also Funabashi, H.* 9603
- Ogawa, T.**  
*See Harada, M.* 1433  
*Minami, Y.* 2493
- Ogden, D. W.**  
*See Powell, G. H.* 9582
- Ogibalov, P. M.**  
Fifty years of research at Moscow University under Soviet rule of the problems of the endurance and stability of plates and shells and of polymer mechanics 3169  
Stability of orthotropic viscoelastic shells 4109  
*See also Ilyushin, A. A.* 4961
- Ogihara, K.**  
A fundamental study of the vibration phenomena in a sluice gate 4434
- Ogino, S.**  
Design characteristics of constant diameter cam: Contribution to Brunell's paper 3415
- Oglesby, P. L.**  
Viscoelastic behavior of dental amalgam 5884
- See also Dickson, G.* 4042
- Ogorodnikov, K. F.**  
Symmetry of a field of forces and the universal integrals of motion 861
- Ogranovitch, A. B.**  
Calculation of a horizontally loaded flexible foundation wall considering soil discontinuity 2453
- Oguchi, A.**  
A magnetostrictive load cell for use under high hydrostatic pressures 6975
- Oguchi, H.**  
Shock wave and viscous layer structure in a rarefied hypersonic flow near the leading edge of a sharp flat plate 5336
- Ogunlade, O.**  
*See Swartman, R. K.* 723
- Ogura, H.**  
Addition theorems for spherical Bessel functions and vector harmonics in spherical coordinates 3921  
Spectral representation of vector random field 5770
- Ogurtsov, A. I.**  
On parameter choice in V.M. Popov's stability criterion for controlled systems 2234
- Oguztoreli, M. N.**  
*See Chaleat, R.* 9406
- Oh, S. K.**  
*See Schetz, J. A.* 7120  
*Schetz, J. A.* 9709
- O'Hagan, M. E.**  
*See Flynn, D. R.* 1376
- O'Hara, G. J.**  
*See Fourney, W. L.* 9404  
*Petak, L. P.* 9462
- O'Hara, S.**  
*See Tarshis, L. A.* 9812
- O'Hare, B. J.**  
*See Walton, T. E., Jr.* 1346
- Ohashi, K.**  
Scattering of lattice waves by a line defect 5646
- Ohashi, Y.**  
Large deflection of a supported circular plate having a nonlinear stress-strain relation 5929
- Ohe, Y.**  
*See Sawaragi, Y.* 9454
- Ohga, J.**  
*See Suzuki, M.* 218
- Ohishi, F.**  
The method of measuring modulus change continuously during fatigue test of plastics 5190
- Ohji, K.**  
*See Miller, W. R.* 6957
- Ohkura, M.**  
*See Iwasaki, M.* 1932
- Ohling, J.**  
Evaluations of pumping tests at an ephemeral state of rest 4742
- Ohman, G. A.**  
Numerical calculation of steady convective mass transfer around a circular cylinder at small Reynolds numbers 1250

- Ohmori, M.**  
Effect of deformation speed on the ductile-to-brittle transition behaviors of steel 6936  
Effect of strain rate on the compressive deformation resistance of steel 8438
- Ohno, J. M.**  
Effect of temperature on the viscoelastic high polymer materials 6542
- Ohrenberger, J. T.**  
*See Rott, N.* 9707
- Ohsaki, Y.**  
The use of jet reaction for dynamic tests of buildings 3414
- Ohta, M.**  
The measurement of the conditional probability density distribution function for two random energy fluctuations by the intensity modulation method 7504
- Ohta, T.**  
*See Yamasaki, T.* 8697
- Ohtaka, K.**  
A study of horizontal and torsional vibration of ships: Part 1 2412
- Ohtani, R.**  
*See Taira, S.* 6728  
*Taira, S.* 8631
- Ohuchida, H.**  
Fatigue strength-hardness relationship for high carbon low alloy steel 6111
- Ohyama, T.**  
*See Mori, M.* 6186
- Ojalvo, I. U.**  
Buckling of naturally curved and twisted beams 6780
- Oka, S.**  
The theory of the double cone viscometer for non-Newtonian liquids 354  
Determination of parameters of a material obeying Casson's equation with some rheometers 358  
Theoretical studies on hemorrheology 756  
The general theory of steady non-Newtonian flow through a tapered tube 4316  
Theory of a cone-plate viscometer for non-Newtonian liquids 6368
- Oka, Y.**  
*See Hiramatsu, Y.* 5162
- Okada, A.**  
Stress waves in pyramids by photoelasticity 6128
- Okada, H.**  
*See Okamura, Y.* 2313
- Okada, K.**  
*See Gotoh, K.* 3164
- Okada, T.**  
*See Tomokiyo, A.* 1245  
*Endo, K.* 8638
- Okajima, T.**  
*See Gotoh, K.* 3164
- Okamoto, I.**  
*See Onishi, I.* 9616
- Okamoto, T.**  
On the solution of the Graetz problem for laminar flow heat transfer in a circular pipe 4513  
*See also Tatsumoto, E.* 1029  
*Inoue, H.* 5087
- Okamura, T.**  
*See Wazzan, A. R.* 7148
- Okamura, T. T.**  
*See Jaffe, N. A.* 8797
- Okamura, Y.**  
The stress distribution around a hole in the web of a beam subjected to pure bending 2313
- Okano, H.**  
*See Shiratori, E.* 7647
- Okazaki, M.**  
*See Toei, R.* 6280
- Okino, N.**  
On the rolling friction 8276
- Okubo, A.**  
Study of turbulent dispersion by use of Lagrangian diffusion equation 463
- Okubo, H.**  
The stress concentration in keyways when torque is transmitted through keys 4937
- Okubo, S.**  
*See Ching, A.* 3358  
*Lock, M. H.* 5069
- Okuda, Y.**  
*See Endo, K.* 6119
- Okulova, M. N.**  
Stresses in sandy soils near a loaded ram 7809
- Okumura, T.**  
Ductile notch fracture of steel plates 9520  
*See also Nishino, F.* 9388
- Okushima, K.**  
Behavior of oxide-layer adhered on tool surface when machining Ca-deoxidized steel 9510
- Okuzawa, T.**  
Drift wave instability on the plasma-pause with a slight modification due to the velocity shear 7330
- Olander, D. R.**  
*See Concus, P.* 1252
- Olander, H. C.**  
Study of pipe with concrete bedding 6997
- Olcer, N. Y.**  
On a heat flow problem in a hollow circular cylinder 3657  
Theory of unsteady heat conduction in multicomponent finite regions 8044  
A general class of unsteady heat flow problems in a finite composite hollow circular cylinder 8058  
Unsteady response of thin elastic plates subjected to time-dependent loads and external damping 9419
- Oldham, K. B.**  
On the hot-wire method for the determination of thermal conductivities 3642
- Oledzki, A.**  
On the rocking of railway cars: Part 1, Analog simulation 8548  
The problem of rocking of railroad cars: Part 2, Model simulation 8549
- Oleinik, O. A.**  
On the existence, uniqueness, stability and approximation of solutions of Prandtl's system of equations for the non-stationary boundary layer 3552  
Solutions of the system of equations of boundary layer theory by the method of straight lines 5379  
On the solution of Prandtl equations by the method of finite differences 6302  
System of boundary layer equations for axisymmetric flow 7128
- Olesiak, Z.**  
Plastic zone due to thermal stress in an infinite solid containing a penny-shaped crack 3819
- Oleson, N. L.**  
Curved-field plasma transmission into a mirror machine 620
- Olevinskaya, S. K.**  
Causes of the generation of thermobaric seiches in the atmosphere 1403
- Olevskaya, I. V.**  
A special case of the application of linear regression in the processing of experimental data 6642
- Olfe, D. B.**  
*See Sepucha, R. C.* 8782
- Oliver, D. R.**  
Turbulence suppression in solutions and pure liquids 4321
- Ollerhead, J. B.**  
*See Lowson, M. V.* 4700
- Olmstead, W. E.**  
Force relationships and integral representations for the viscous hydrodynamical equations 8760
- Olofsson, B.**  
The mechanics of creasing and crease recovery 5956
- O'Loughlin, J. R.**  
*See Douglas, G. W.* 3737
- Olsen, H. L.**  
*See Bunt, E. A.* 633
- Olsen, J. R.**  
Mechanical shock of honeycomb structure from pyrotechnic separation 234
- Olsen, W. A., Jr.**  
Three-phase heat transfer: Transient condensing with freezing on a non-isothermal inclined plate 8089
- Olshetskii, V. V.**  
*See Akulichev, V. A.* 4666
- Olshstein, L. E.**  
*See Borisov, G. A.* 490
- Olson, D. A.**  
*See Sanders, F.* 6574
- Olson, M. D.**  
Finite plate-bending elements in polar coordinates 7690  
*See also Evensen, D. A.* 5602
- Olson, R. B.**  
Variable thermal conductivity heat transfer research for personal protective assemblies 1961
- Olson, R. M.**  
Aortic blood pressure and velocity as a function of time and position 9162

- Olsson, G. R.  
See Adamson, T. C., Jr. 8110
- Orlstad, W. B.  
Equilibrium normal-shock and stagnation-point properties of helium for incident-shock Mach numbers from 1 to 30 1116  
Blunt-body stagnation-region flow with nongray radiation heat transfer: A singular perturbation solution 1230  
Correlations for stagnation-point radiative heat transfer 7256
- Olzowski, J. D.  
Prevention of cavitation erosion in the pressure lines injection systems by a new pressure relief device 7054
- Olver, F. W. J.  
An extension of Miller's algorithm 4854
- O'Malley, R. E., Jr.  
A boundary value problem for certain nonlinear second order differential equations with a small parameter 3912  
Loss of boundary conditions in the asymptotic solution of linear ordinary differential equations: Part 2, Boundary value problems 7485  
See also Handelman, G. H. 768
- Omidvaran, C.  
See Dean, D. L. 7714
- Ommaya, A. K.  
Mechanical properties of tissues of the nervous system 6586
- Omor, M.  
See Kuroki, K. 308
- Onat, E. T.  
See Wang, T. T. 1609  
Lee, L. C. 4979
- Ong, C.-C.  
Vibrations of thin cylindrical shells under axisymmetric thermal stresses 6007
- Ong, R. S. B.  
See Turcotte, D. L. 5566
- Onishchenko, I. N.  
See Kondratenko, A. N. 618
- Onishi, I.  
A study on the adhesion of metals: Part 1, The effect of electric field applied during bonding process on adhesive strength 9616
- Ono, A.  
See Mossop, S. C. 6576
- Ono, K.  
On the vibrations of horizontal shaft supported in oil lubricated journal bearings 6855  
Whirl instability of externally pressurized gas journal bearing 7460  
See also Taniguchi, O. 2980
- Onyshko, S.  
Optimization of pulse frequency modulated control systems via modified maximum principle 9262
- Oosthuizen, P. H.  
Heat transfer by turbulent free convection from a vertical plate 1219
- Oparin, A. A.  
See Krutasova, E. I. 6925
- Opilski, A.  
Propagation of an acoustic wave in a non-Newtonian viscous liquid 8194
- Opitz, H.  
Investigations on the kinematic accuracy in transmission of involute-tooth gears 1775
- Opolski, T.  
Variations of the mean forces in a closed chain contour 8704
- Oppenheim, A. K.  
See Kamel, M. M. 509  
Urtiew, P. A. 581  
Urtiew, P. A. 5528
- Opsal, M.  
See Komlos, K. 2740
- Oran, C.  
Complementary energy method for buckling of arches 918
- Orange, T. W.  
A semiempirical fracture analysis for small surface cracks 8623
- Orcutt, F. K.  
See Lund, J. W. 182
- Orenbakh, M. S.  
The reaction surface of brown coal cokes 4572  
The reaction surface of anthracite and its coke 5537
- Organ, A. J.  
The calibration of high energy-rate impact forming machines 2461
- Orkisz, J.  
Finite deformations of axisymmetric flexible shells with rheological properties of material taken into account 6774  
Finite deformation of a circularly symmetric shell under membrane state of stress in some nonlinear cases 9382
- Orlanski, I.  
Instability of frontal waves 716
- Orloff, L.  
See Torrance, K. E. 8908
- Orlov, A. N.  
See Indenbom, V. L. 5902
- Orlov, L. A.  
Investigation of the transient responses in nonlinear automatic systems by means of fixed differential equations 1490
- Orlov, V. A.  
See Zhukovskii, V. G. 9252
- Orlov, Yu. I.  
See Ivanovskii, M. N. 550
- Oroveanu, T.  
Use of the stream function for the study of plane flows with constant vorticity through porous media with variable permeability 2955  
Some aspects of the flow of compressible liquids through porous media 4740
- Orszag, S. A.  
Formulation of the theory of turbulence 455  
Model equations for strong turbulence in a Vlasov plasma 2041
- Orthwein, W. C.  
A nonlinear stress-strain relation 7591
- Ortloff, C. R.  
Restricted variational principle method for problems of low-density aerodynamics 5364  
Steady-state flow of a subsonic inviscid stream through statistically roughened wall ducts 6263  
Supersonic flow through statistically roughened wall ducts 8777
- Orudzhaliyev, E. A.  
Gasodynamic functions for one-dimensional adiabatic high-pressure flows 8893
- Osadchii, A. S.  
See Titov, V. B. 1398
- Osaki, S.  
Linear programming algorithms for semi-Markovian decision processes 3926  
See also Mine, H. 3012
- Osborn, J. F.  
Rectangular-bar trashrack and baffle headlosses 5277
- Osborn, J. J.  
A constant-flow valve for respiratory gas sampling 4811
- Osborn, R. B.  
See Green, A. E. 3142
- Osborne, M. F. M.  
The theory of the measurement of surface viscosity 3445
- Osburn, C. M.  
See Stanisic, M. M. 5994
- Oschatz, A.  
Determination of the maximum load of circular and annular plates, shear stresses considered 9345
- Oserby, C.  
Vibrating-wire load cell for long-term pile tests 2512
- Oshchynko, L. Y.  
See Fleyshman, N. P. 1647
- O'Shea, R. P.  
A frequency-time domain stability criterion for sampled-data systems 3053
- Osinski, Z.  
Vibration of a certain nonlinear system with variable rigidity 9412
- Osipov, A. D.  
See Konviz, V. S. 3399
- Osipova, V. A.  
See Pak, M. I. 7400
- Osmolovskii, P. F.  
Iterational principle of constructing multichannel automatic control systems 4879
- Ostberg, G.  
Crack propagation in hydrided Zircaloy-2 3350
- Ostergren, L.  
See Kelen, A. 567
- Ostertag, W.  
Temperature measurements with metal ribbon high temperature X-ray furnaces 2804
- Osterwalder, J.  
Tail water depression of multijet impulse turbines 484

- Ostrach, S.  
See Loper, D. E. 8989
- Ostroumov, V. P.  
Increasing the endurance of cylindrical springs by the method of plastic straining of the surface 1734
- Ostwald, P. F.  
Effects of dynamic chip-breaking upon surface microgeometry and free chip dimension 263
- Oswatitsch, K.  
Thrust and drag with heat addition in supersonic flow 5420  
Lagrange representation of the hydrodynamic equations under small disturbances 6261
- Oszkar, K.  
On the solution of the problem of a continuous girder by a method of vibration theory 5217
- Ota, H.  
See Yamamoto, T. 5079  
Yamamoto, T. 8538
- Ota, T.  
See Nishiyama, T. 1809
- Otani, N.  
See Kobayashi, A. 279
- O'Toole, K. M.  
An accelerometer calibrator for the low-frequency large-displacement range 9460
- Otpushchennikov, E. N.  
Experimental investigations of the stability of constructions in the action of pulsed loads using models 8577
- Otsuki, Y.  
Tall buildings and aeroelastic problems of earthquake and wind 2065  
Flutter experiments on prismatic bars of rectangular sections 5610  
Secondary flows in cascades 9787
- Otte, G.  
On a method for determining the characteristics of drifting plants 1496
- Ottner, K.  
Consideration of leakage losses during acceptance tests on steam turbines 5541
- Otto, L.  
The ramjet: Layout and operation 8111
- Otto, R. E.  
See Gallier, P. W. 2240
- Outa, E.  
See Tajima, K. 1110
- Ovakimyan, R. N.  
Flutter of a plate in a magnetic field 9022
- Ovsyannikov, B. M.  
See Borzdyka, A. M. 2517
- Ovsyannikov, B. V.  
See Borovskii, B. I. 487
- Owczarek, J. A.  
Introduction to fluid mechanics 3479
- Owczarski, W. A.  
See Duvall, D. S. 7915  
King, W. H. 7919
- Owen, D. R.  
On the concept of rate-independence 6213
- Owen, J. D.  
The bending behavior of plain-weave fabrics woven from spun yarns 4058
- Owhadi, A.  
Forced convection boiling inside helically-coiled tubes 9816
- Oxford, J. T. B.  
See Deverson, E. C. 6350
- Oxley, J. H.  
See Carlton, H. E. 7285
- Oyane, M.  
Fundamental study of electrosark forming: Deformation of cylindrical shell and circular diaphragm 3318
- Ozaki, S.  
Study on fluid logic elements: Part 3, Flow patterns in fluidic bistable element 4885
- Ozbek, T.  
On the theory of bending of thick straight bars 4986
- Ozden, K.  
Analysis of a rectangular plate under uniformly distributed load and supported on one side together with supports at two corners 8465
- Ozernoi, V. M.  
Heuristic method for the optimization of a schedule of operations 1471
- Ozerov, D. K.  
See Molotkov, I. A. 4178
- Ozerov, V. I.  
See Van Fo Fy, G. A. 9323
- Ozgur, C.  
Friction losses in pipe bends due to swirling flow 5274
- Ozisik, M. N.  
Heat transfer for laminar flow in a curved pipe 3660
- Ozmen, G.  
See Cakiroglu, A. 3219
- P
- Pabich, R.  
Automated vibration analysis 2214
- Pach, L.  
Experimental verification of calculated pipeline stresses 7709
- Pachadzhyan, Kh. B.  
See Kocharyan, N. M. 3138
- Paciga, A.  
Analytical form of characteristic curves for a centrifugal pump 3601
- Packham, B. A.  
Capillary-gravity waves against a vertical cliff 4429
- Padet, J. P.  
Heat transfer through a heterogeneous layer 4503
- Paduart, A.  
Stability of cooling towers 922
- Pae, K. D.  
Stress-strain behavior of polypropylene under high pressure 4051
- Pagani, C. D.  
See Bassanini, P. 9699  
Cercignani, C. 9703  
Cercignani, C. 9704
- Pagano, N. J.  
Stress singularities around a crack in a Cosserat plate 2311
- Page, R. H.  
See Przirembel, C. E. G. 8003
- Pahwa, J. L.  
See Jagadish, K. S. 4136
- Pai, S.-I.  
Modern aspects of radiation magnetogasdynamics 5586  
Three-dimensional laminar jet mixing 9646
- Paidoussis, M. P.  
Stability of towed, totally submerged flexible cylinders 9780
- Paiewonsky, B.  
Synthesis of optimal controls 1516
- Paik, S. F.  
See Briggs, R. J. 2036
- Pak, C. H.  
On the existence of normal mode vibrations in nonlinear systems 6802
- Pak, M. I.  
Quasi-steady-state method of comprehensive determination of thermophysical properties of solids over a wide temperature range 7400
- Pak, Z. N.  
Motion of a body of variable mass along a three-point straight line 7574
- Pakdemirli, E.  
Mechanical properties of some cold rolled plastics 3145
- Pakendorf, H.  
On the optimization of the power plant of a short-range airplane with special regard to high by-pass ratios 4618
- Pakhomov, B. P.  
Wear resistance of chromium-plated coatings on piston rings in relation to the mode of pressure increase 734
- Pakstys, M., Jr.  
Dynamic substructures method for shock analysis 5084  
Integrated shock and acoustic modular design concept for submarines 5248
- Pal, A.  
See Ackenberg, R. C. 3489
- Pal, M. C.  
Large amplitude free vibrations of rectilinear plates 6002
- Palazuelos, P. L.  
Laboratory spillway studies of Hidraulica de Iberduero, S. A. 3476
- Paldas, M.  
Three-dimensional photoelastic analysis of a bar subjected to a band-pressure 6131
- Palfalvi, I.  
Examining the function of resistance extensometer in a space of variable state 9560
- Palfrey, A. J.  
See Davies, D. V. 3893



- Pallabazzer, R.  
The axisymmetric boundary layer for anelastic fluids 5270
- Pallotti, C.  
Study of artificial haemodialysis: Part 2 3892
- Pallotti, G.  
See Pallotti, C. 3892
- Palm, J. W.  
Determination of steam quality using an orifice meter 4461
- Palmer, A. C.  
Normality relations and convexity of yield surfaces for unstable materials or structural elements 1606  
Optimal structure design by dynamic programming 3390  
Limit analysis of cylindrical shells by dynamic programming 8682
- Palmieri, L.  
See Alippi, A. 4699
- Palmov, V. A.  
Propagation of vibrations in a nonlinear dissipative medium 6042
- Palotas, L.  
Shear analysis of reinforced concrete structure on the basis of fracture theory 2534  
Some problems of multi-axial stress of concrete 9571
- Paltiel, B.  
See Charn, S. 8306
- Pan, H. H.  
Axisymmetrical vibrations of a circular sandwich shell with a visco-elastic core layer 9425
- Pan, Y. -F.  
Shape of a drop or bubble at low Reynolds number 390  
Heat transfer at high Peclet number in regions of closed streamlines 1211
- Pan, Y. S.  
Effects of winds and inhomogeneous atmosphere on sonic boom 1355  
Propagation of an  $N$  wave across a nonuniform medium 9988
- Pana, T.  
Torsional vibrations of thin-walled bars with closed cross section, having rigid diaphragms 3242
- Panchev, S.  
Kovaszny's spectral theory of turbulence 9733  
Exact elementary solutions of the spectral equation of nonstratified turbulent shear flow 9736
- Pancholy, M.  
See Gangoli, S. G. 7384
- Panda, B. B.  
Design of nonlinear stabilizing regulator 3948
- Panda, B. C.  
A new method of testing the surface finish of a metal 310
- Pande, D.  
See Bhargava, R. D. 1573  
Bhargava, R. D. 4939
- Pandey, K. S.  
Laminar boundary layers in exponential flow along an infinite flat plate with uniform suction 9708
- Pandit, G. S.  
Moment distribution in space frames 2540  
Long-time torsion tests 6144
- Pandolfi, M.  
On the incompressible flow in axial turbomachinery with several closely packed blade rows 1918  
See also Bussi, G. 1162
- Panferov, V. M.  
Theory of elasticity and the deformation theory of plasticity for solids with various properties as regards compression, tension, and torsion 7644  
See also Ogibalov, P. M. 3169
- Panichkin, I. A.  
Foundations of gasdynamics: Application to supersonic shock tubes 515
- Panknin, W.  
Calculation of the stress conditions and the strength of cold-flow dies 3303
- Pankov, O. M.  
Investigation of a small-scale high-efficiency four-cascade annular diffuser 1920
- Panov, J. A.  
See Shvets, A. I. 9667  
Voytenko, D. M. 449
- Panovko, Ya. G.  
See Blekhnman, I. I. 766  
Gubanova, I. I. 3201
- Pao, Y. C.  
Hypergeometric series solutions of some anticlastic deformation problems 127  
Influence coefficients of short circular cylindrical shells with varying wall thickness 2376  
Optimization study of anticlastic curvature of cylindrically bent strips with variable thickness 6759  
A generalized analysis of conically bent plates by large-deflection theory 7719  
See also Wang, H. -C. 4076
- Pao, Y. -H.  
Transfer of turbulent energy and scalar quantities at large wavenumbers 1128  
See also Thau, S. A. 7789
- Pao, Y. -p.  
Asymptotic theory of nearly free-molecular flows 9702
- Papadakis, E. P.  
Ultrasonic phase velocity by the pulse-echo-overlap method incorporating diffraction phase corrections 2922
- Papailiou, D. D.  
Magneto-fluid-mechanic laminar natural convection: An experiment 7314
- Papin, Yu. D.  
Determining the locking moments in the engagement of epicyclic gears 6192
- Papirno, R.  
Low strain-rate plastic buckling of aluminum cylinders at 500°F 5066
- Paquet, J.  
Vibration study of concrete piles: Harmonic and impact response with applications to nondestructive testing or control 9431
- Paquet, J. G.  
Synthesis of nonlinear servosystems with a piece-wise linear component 9233
- Paramasivam, V.  
See Ganesan, T. P. 9577
- Parameswaraiiah, R.  
An electrical transducer and the associated instrumentation for fluid pressure measurement 6360
- Paranjpe, P. A.  
See Hebbar, K. S. 9716
- Parbrook, H. D.  
See Utley, W. A. 7374
- Pardo, M. S.  
Study of torsion by means of electrical current analogy 4858  
Electrical analogs for torsion studies 7520
- Pariel, J. -M.  
A contribution to the study of unstable combustion in industrial furnaces 9842
- Parihar, K. S.  
See Srivastav, R. P. 3004
- Parisot, J.  
Fuel cells with electrochemical hydrogen combustion 1185
- Park, B. J.  
See Grosberg, P. 7599
- Park, R.  
Limit designs of beams for two-way reinforced concrete slabs 4992  
The ultimate strength of continuous composite T-beams 7880
- Parker, E. N.  
Confinement of a magnetic field by a beam of ions 2861
- Parker, E. R.  
See Katz, Y. 3332
- Parker, G. J.  
See Ryley, D. J. 6247
- Parker, J. D.  
See Hewitt, H. C. 4726
- Parker, M. A.  
The sonic boom problem: An examination of the overpressures on the ground caused by supersonic aircraft with particular application to Concorde 2103
- Parker, R.  
Low frequency resonance effects in wake shedding from parallel plates 2100  
Calculation of flow through cascades of blades having relative motion and the generation of alternating pressures and forces due to interaction effects 5440  
An investigation of acoustic resonance effects in an axial flow compressor stage 7184
- Parker, R. J.  
Rolling-element fatigue life of austempered M-50 steel balls 2489
- Parker, R. O.  
Shell-side pressure loss in baffled heat exchangers 1812

- Parker, W. H.  
See Carver, D. R. 3240
- Parkes, E. W.  
The inelastic behavior of aluminum alloy tension members when subjected to heating on one face 5632
- Parkhomenko, I. S.  
See Gvozdev, A. A. 5680
- Parkins, B. E.  
Scattering from the time-varying surface of the ocean 669  
Coherence of acoustic signals re-radiated from the time-varying surface of the ocean 8178
- Parkins, R. N.  
Mechanical treatment of metals 257
- Parkinson, G. V.  
See Ferguson, N. 1096
- Parks, D. E.  
See Boffi, V. C. 3771
- Parks, V. J.  
Maximum stress at the angular corners of long strips bonded on one side and shrunk 2499  
Stresses in a restrained shrinking disk with a central slot 3115  
See also Durelli, A. J. 871  
Chiang, F.-P. 5203  
Clark, J. A. 6124  
Durelli, A. J. 9530  
Durelli, A. J. 9538
- Parland, H. N.  
On the stiffness of nonmonolithic structures 4267
- Parlange, J.-Y.  
Influence of preferential diffusion on the stability of a laminar flame 6435
- Parlett, L. P.  
Wind-tunnel investigation of a large jet transport model equipped with an external-flow jet flap 6324
- Parmakian, J.  
Unusual aspects of hydraulic transients in pumping plants 1908
- Parmelee, R. A.  
Seismic response of structure-foundation systems 7005  
See also Shieh, W. Y. J. 4067  
Perelman, D. S. 7006
- Parrish, W. R.  
See Lyon, D. N. 4718
- Parry, R. H. G.  
Field and laboratory behavior of a lightly overconsolidated clay 5160
- Parsons, D.  
See Howard, G. M. 2760
- Parszewski, Z.  
Pressure distribution and hydrodynamic forces of journal bearing partial sleeves 5728
- Partel, G.  
Low-cost reusable rockets 4576
- Partin, R. D.  
See Cebeci, T. 8002
- Parts, R. R.  
Simplified determination of the short-circuit current in a helical induction pump 2060
- Partsevskii, V. V.  
See Bolotin, V. V. 9311
- Parusnikov, N. A.  
See Devyanin, E. A. 4638
- Parzonka, W.  
Rheological behavior of homogeneous soil-and-water mixtures 1798  
Model with three parameters for viscoplastic bodies: Solution for the Couette-type rotating viscosimeter 7195
- Pascal, H.  
Unstable flow in gases through main pipelines 5362  
Nonisothermal gas flow in pipelines 7087
- Paschkis, V.  
See Razelos, P. 3028
- Pashitskii, E. A.  
Interaction of spatially inhomogeneous plasma streams in a magnetic field 9880
- Pashkovski, V. G.  
Distribution of microcracks in concrete 2475
- Pasin, F.  
Elastic vibrations of rocking levers 4148
- Paskonov, V. M.  
Algorithm for the solution of boundary-value problems 7993
- Paslay, P. R.  
See Woo, S. H. 2946
- Pasler, M.  
Principles of mechanics 6694
- Passetti, P.  
Systematical measurements of heat transfer across air gaps between walls 7258
- Passig, E.  
See Glukler, E. 6791
- Passman, S. L.  
See Marris, A. W. 1807
- Pastori, M.  
Apparent forces of analytical mechanics 2283
- Pastushikhin, V. N.  
Oscillation of shallow shells made from linearly-elastic materials taking into account the internal elastic resistance 6840
- Paszyc-Stepkowska, E.  
Study in physico-chemical interpretation of the shearing process of saturated clays 7800
- Pate, S. R.  
Radiated aerodynamic noise effects on boundary-layer transition in supersonic and hypersonic wind tunnels 8810
- Patel, D. J.  
See Janicki, J. S. 3891
- Patel, H. N.  
See Taulbee, D. B. 5381
- Patel, P. D.  
Interface conditions in heat-conduction problems with change of phase 5502
- Patel, S. A.  
Creep stress concentration at a circular hole in an infinite plate 5882  
See also Salzman, A. P. 2407
- Patel, T. S.  
See Murthy, P. N. 4229
- Patel, V. C.  
Reversion of turbulent to laminar flow 5394  
Measurements of secondary flow in the boundary layers of a 180 degree channel 9711
- Pato, T.  
Application of a two-layer filter for purifying surface waters 2947
- Patraulea, N. N.  
Theoretical considerations on the Coanda effect 9636
- Patrick, L. M.  
Cadaver knee, chest and head impact loads 3885  
See also Mertz, H. J., Jr. 4801
- Patrick, R. M.  
See Schneiderman, A. M. 3623  
Pugh, E. 3787
- Pattabhi Ramacharyulu, N. Ch.  
Slow steady flow of an idealized viscoelastic incompressible fluid of Oldroyd type through a straight tube with an arbitrary cross section 7953  
See also Sastry, P. G. 4323
- Pattee, H. E.  
Theoretical and experimental study of cathodic cleaning with the plasma arc 6207
- Patterson, G. K.  
Prediction of drag reduction with a viscoelastic model 6216
- Patterson, J. C., Jr.  
A wind-tunnel investigation of jet-wake effect of a high-bypass engine on wing-nacelle interference drag of a subsonic transport 1143
- Patterson, R. B.  
Using the ocean surface as a reflector for a self-reciprocity calibration of a transducer 2114
- Patterson, T. N. L.  
The optimum addition of points to quadrature formulas 6634  
On some Gauss- and Lobatto-based integration formulas 6635
- Patton, P. C.  
Matrix analysis of nonproportionally damped dynamical systems employing the A-P algorithm 8160
- Paul, B.  
Explicit solutions for circular plates with discontinuous axisymmetric loads and overhung supports 4996  
See also Fu, C. C. 2287
- Paul, E. L. W.  
General pressure distribution for an oscillating sphere floating in a fluid of finite depth 9782
- Paul, H. S.  
Vibrational waves in a thick infinite plate of piezoelectric crystal 3260
- Paul, R. J. A.  
Stability of coupled fluid beds 689
- Paulay, T.  
The nature of shear resistance in reinforced concrete beams 1758

- Paulay, T. (Continued)**  
*See also* Fenwick, R. C. 6170
- Paunescu, M.**  
 On sinking and tearing out of different members by means of vibration 8590
- Pavagadhi, L. J.**  
 Effect of downstream geometry on rarefied gas flow through a nozzle throat 430
- Pavelescu, D.**  
 Main parameters of the wear of plane surfaces in alternating motion: Part 1, Modelling and measuring installation 3871  
 Determination of the importance of some wear factors by statistical analysis 7452
- Pavel-Parvu, M.**  
*See* Korganoff, A. 6604
- Pavlenko, G. V.**  
*See* Belan, N. V. 8867
- Pavlidis, T.**  
 Optimal control of pulse frequency modulated systems 4900
- Pavlik, E.**  
 A method of approximation for the design of time optimal control systems using conventional controllers with limited speed and magnitude of the correcting action 7566
- Pavlov, B. M.**  
 Calculation of hypersonic viscous flow past a sphere close to the retardation line 405
- Pavlov, F. A.**  
 Comparative analysis and study of a control system with a nonlinear correcting element 9235
- Pavlov, V. G.**  
 Constructing certain invariant solutions of Bellman's equation 6677  
*See also* Lunev, V. Y. 7976
- Pavlovskii, M. A.**  
 On the influence of manufacturing errors of gimbal suspension frames on the dynamic accuracy of a gyroscope 6697
- Pavluch, L.**  
 On the solution of flow in channels between vanes of a centrifugal impeller 2731
- Pavolv, B. M.**  
 Numerical solution of the Lagrange problem in the case of the supply of heat 1978
- Pawelka, E.**  
 Method for the stepwise integration of linear differential equations 9176
- Pawelski, O.**  
 Geometry and kinematics of the roll gap in straightening of round bars by two roll straightening machines 5173  
*See* Kortzfleisch, B. v. 260
- Pawinski, J.**  
 Air flow in leaky ventilation pipelines 1814
- Pawlik, P. S.**  
*See* Reismann, H. 938
- Pawsey, S.**  
*See* Brown, C. B. 1719
- Paxton, G. W.**  
 Theory of rarefaction waves in plasmas bearing large currents 3760
- Payne, L. E.**  
*See* Knops, R. J. 5035  
 Knops, R. J. 5296  
 Bramble, J. H. 7490  
 Knops, R. J. 7778  
 Hersch, J. 8531
- Payne, P. R.**  
 A simplified approach to free-surface wave drag theory 1903
- Paz, A.**  
 A finite set of  $n \times n$  stochastic matrices generating all  $n$ -dimensional probability vectors whose coordinates have finite binary expansion 3906
- Pazoisky, Yu. O.**  
 The solution of the problem of powerful point explosion in ideal compressible media for cylindrical and plane waves 1154
- Pchelkina, L. V.**  
*See* Dyakonov, Yu. N. 403
- Pchelko, I. G.**  
 Clear-air turbulence 8257
- Pearce, R.**  
*See* Naziri, H. 6911
- Pearcey, H. H.**  
 Examples of the effects of shock-induced boundary-layer separation in transonic flight 2667
- Pearson, C. E.**  
 On a differential equation of boundary layer type 2200  
 On nonlinear ordinary differential equations of boundary-layer type 6630
- Pearson, G. A.**  
 Nonlinear effects of fluctuations in a current-carrying plasma 2858
- Pearson, J. B.**  
 Compensator design for dynamic optimization 7552
- Pearson, R. H.**  
 Gear overdesign and how to avoid it 7016
- Pearson, S.**  
 Fast cracking during fatigue crack propagation in metals 281
- Pearson, W. E.**  
 Channel flow of gaseous mixtures in chemical and thermodynamic non-equilibrium 2640
- Peavy, B. A.**  
 Analytical studies of probe conduction errors in ground temperature measurements 7218
- Pechhold, W.**  
*See* Zuckerwar, A. 210
- Pechuk, V. I.**  
 Reduction of the effects of reactive components in strain-gage signals 8657
- Pecover, B. E.**  
 The new system for controlling the attitude and motor deflections of a model in the R.A.E. no. 19 wind tunnel 7201
- Ped, V. N.**  
 A steady-state problem of heat conduction in a layer with heat transfer conditions at the boundary 6381
- Pedersen, M. A.**  
 Comparison of curvilinear and linear profile approximation in the calculation of underwater sound intensities by ray theory 4691
- Pederson, R. N.**  
 On unitary properties of Grunsky's matrix 4819  
 A proof of the Bieberbach conjecture for the sixth coefficient 6622
- Pedley, T. J.**  
 On the instability of rapidly rotating shear flows to nonaxisymmetric disturbances 1098  
 The toroidal bubble 1817  
 On the instability of viscous flow in a rapidly rotating pipe 8770
- Pedlosky, J.**  
 An overlooked aspect of the wind-driven oceanic circulation 6559  
*See also* Barcilon, V. 378
- Pegg, R. J.**  
*See* Kelley, H. L. 4616
- Pegoraro, M.**  
*See* Szilagyi, L. 1600
- Pei, D. C. T.**  
*See* Kubair, V. G. 5492
- Peisakh, E. E.**  
 On the kinetic foci of a conservative system for isoenergetic trajectories 6491
- Peiter, A.**  
 Strain measuring cylinder: A transducer for three-dimensional deformations 6135
- Peizer, E.**  
 Socket flexion and gait of an above-knee, bilateral amputee 2990  
*See also* Staros, A. 9169
- Pejovic, S.**  
 On the flow through turbomachines with potential in meridional section 4443  
 Equations of the stream field and the blade surfaces of radial pumps 6354
- Pekarek, F.**  
 Bresse's plane of zero tangential accelerations of body points 6693
- Pekeris, C. L.**  
*See* Pnueli, A. 2715  
 Pnueli, A. 3577
- Pekoz, T. B.**  
 Torsional-flexural buckling of thin-walled sections under eccentric load 9387
- Pelecudi, Chr.**  
 Utilization of high order compound accelerations for the examination of multi-poles and plane mechanisms 4309  
 Method of solidary bodies for closed kinematic chains: Part 2 6195
- Peleg, I.**  
 A study of solid propellant rocket motor ignition 2017
- Pelekh, B. L.**  
*See* Sheremetev, M. P. 9348

- Pell, K. M.  
Electron temperature in an electrodeless discharge 617
- Pellet, D. A.  
Buckling of a tension panel containing a circular hole 2391
- Pellini, W. S.  
Advances in fracture toughness characterization procedures and in quantitative interpretations to fracture-safe design for structural steels 6932  
*See also* Loss, F. J. 8615
- Pendergraft, O. C., Jr.  
*See* Berrier, B. L. 1345
- Penfold, A. S.  
*See* Seemann, G. R. 2898
- Penner, S. S.  
*See* Sharma, O. P. 2688
- Penny, J. E. T.  
Impedance measurements of a hydraulic servomechanism 4880
- Penny, R. K.  
The mechanics of tensile testing  
The deformations and stresses in a stretched thin plate containing a hole during stress redistribution caused by creep 9321  
*See also* Leckie, F. A. 7737
- Pense, A. W.  
*See* Hickerson, J. P. 5188
- Penzien, J.  
*See* Dibaj, M. 7790
- Percival, C. M.  
Thermally generated stress waves in a dispersive elastic rod 8568  
*See also* Hutchinson, J. R. 6026
- Percuoco, A.  
Application of the second method of Lyapunov to control systems 801
- Percus, J. K.  
*See* Kijewski, L. 4482
- Perdang, J.  
Some remarks on the oscillations of cylinders and rings 4590
- Peregrine, D. H.  
Long waves in a uniform channel of arbitrary cross section 4430  
Solitary waves in trapezoidal channels 5431
- Peregud, B. P.  
*See* Abramova, K. B. 3779
- Perel, J.  
Research and development of a charged-particle bipolar thruster 8983
- Perelman, D. S.  
Seismic response of single-story interaction system 7006
- Perelman, I. I.  
Asymptotic properties of the error in the estimation of the impulse response 7530
- Pereverzev, D. A.  
Nonstationary thermal conductivity and thermal elasticity in multilayer cylindrical systems 4714
- Perez, M.  
Radiant heating of an absorbing and scattering slab 4531
- Pergament, S. P.  
Limiting solutions for boundary-layer flow of a radiating gas 5490
- Pericart, J.  
Magnetohydrodynamic conversion of energy: The present state of the art 632  
*See also* de Montardy, A. 3795
- Perino, A. M. S.  
On the accuracy of Donnell's theory for cylindrical shells 7702
- Perkins, H. C.  
*See* Campbell, D. A. 6392  
*See* Lewis, D. V. 7227
- Perkins, J. N.  
*See* Garrett, L. B. 9671
- Perkins, R. W., Jr.  
A general theory of plane elastostatic dislocation problems for anisotropic media 3127
- Perkins, W. R.  
Design of minimum sensitivity systems 7527
- Perko, L. M.  
Large-amplitude motions of a liquid-vapor interface in an accelerating container 8839
- Perlin, P. I.  
On the solution of the basic problems of potential theory and the theory of elasticity for some hollow and composite bodies 2303
- Perlock, J.  
The tearing limit in bulge-forming 3304
- Pernecker, L.  
*See* Bonnefille, R. 2944
- Perotti, G.  
*See* Micheletti, G. F. 997  
*See* Micheletti, G. F. 998
- Perrett, J. B.  
Spark knock: Part 3, The influence of engine design on spark knock at high speeds 5544
- Perrier, A.  
*See* Daudet, F. 8930
- Perrone, N.  
Dynamic response of pulse-loaded rate-sensitive structures 2438
- Perrott, D. R.  
Role of signal onset in sound localization 8302
- Perrotta, J. H.  
*See* Redner, S. 6960
- Perry, B.  
*See* Colonell, J. M. 3595
- Perry, C. C.  
Plane-shear measurement with strain gages 6964
- Perry, M. A.  
Flight test instrumentation 4477
- Persen, L. N.  
A note on the basic equations of turbulent boundary layers and the heat transfer through such layers 439  
Investigation of streamwise vortex systems generated in certain classes of curved flow: Part 1 1075
- Investigation of streamwise vortex systems generated in certain classes of curved flow: Part 2 1076  
*See also* Kestin, J. 2669
- Persson, R.  
Heat absorbing and heat reflecting types of glass 1957
- Pert, G. J.  
Observations of the flow in an electromagnetic shock tube 7332
- Pertuis, J.  
*See* Mencarelli, E. 9528
- Pervozvanskii, A. A.  
Theory of automatic control in the works of the department of "Mechanics and processes of control" 37  
On the relations between the fundamental theorems of mathematical programming and the maximum principle 1528
- Pervyshin, N. V.  
*See* Fishbein, B. D. 2837
- Perzyna, P.  
On thermodynamics of the rate type material 7214  
On thermodynamics of elastic-viscoplastic material 7215
- Peschon, J.  
*See* Meier, L., III 63
- Peshak, G. M.  
*See* Lindh, D. V. 9611
- Peskin, R. L.  
*See* Briller, R. 9823
- Pestel, E. C.  
Dynamics 9268
- Petak, H.  
Experience with simple pulse-converters on four-stroke diesel engines 590
- Petak, L. P.  
Determination of fixed-base, natural frequencies of dual-foundation, shipboard equipments by shake tests 9462
- Petcu, V.  
Plastic design of reinforced concrete annular slabs subjected to uniformly distributed loads 2524  
Plastic design of statically indeterminate steel beams according to the elastic limit criterion 4260  
*See also* Soare, M. 5246
- Peteenko, M. P.  
Vibrations of a system of material points of variable mass 3095
- Peters, A. S.  
Abel's equation and the Cauchy integral equation of the second kind 1462
- Peters, F. W.  
*See* Uchiyama, J. T. 7338
- Peters, T.  
*See* Hugel, H. 5557
- Petersen, E. E.  
*See* Shannon, L. J. 2825
- Petersen, G. M.  
Regular matrix transformations 2992



- Petersen, P. H.  
Shrinkage and creep in prestressed concrete 5233
- Peterson, A.  
See Young, R. W. 9056
- Peterson, D. A.  
See Winter, J. M. 9857
- Peterson, V. L.  
See Tobak, M. 6318
- Peterson, W. C.  
Development and evaluation of transfer functions for nucleate, transition and film boiling 1239
- Petersons, N.  
Should standard cube test specimens be replaced by test specimens taken from structures? 9557
- Petrasovits, G.  
Soil stabilization experiments with plastic resins 6070
- Petre, A.  
Hydroelastic divergence due to lift in the case of hydrofoils 1415
- Petrenko, N. V.  
See Dzordzhio, V. A. 9983
- Petrenko, Yu. I.  
See Kogan, B. Ya. 9251
- Petrtskaya, I. G.  
Vibrations of a membrane loaded with a thin layer of air 5991
- Petrof, R. C.  
The temperature distribution in rotating thick-walled cylinders heated by radiation 1222  
Thermal stresses in a rotating cylinder heated by solar radiation 9943
- Petrone, F. J.  
Validity of the classical detonation wave structure for condensed explosives 2094
- Petroski, H. J.  
Controllable states of rigid heat conductors 8053
- Petrosyan, G. S.  
Calculation of frames in the matrix formulation in the presence of initial strains 315
- Petrov, N. G.  
See Brdlik, P. M. 3709
- Petrov, V. I.  
Orthotropic cylindrical shell in a moving field of random pressures 193
- Petrov, Yu. P.  
Discrete method for strength calculations of shallow shells with double curvature rectangular in projection  
Airplane control law which ensures minimum fuel consumption 3082  
Calculation for flexure and stability of plates in the form of a complete and incomplete sector by the discrete method 7689
- Petrova, G. P.  
Measurement of temperature and density of charged particles of an argon plasma jet 5601
- Petrova, V. V.  
Elastic characteristic of a cylindrical gas bearing of finite length, in the case of angular displacement of the inner cylinder, in elementary functions 9149
- Petrovic, L. J.  
Mass transfer in flow of gases through packed beds: Low Reynolds number region 1996  
Effectiveness factors for heat transfer in fluidized beds 1997
- Petrovskii, V. S.  
The removal of icing with metallic and nonmetallic air-screw blades 1234
- Petryshyn, W. V.  
On projectional-solvability and the Fredholm alternative for equations involving linear A-proper operators 7477
- Pettit, K. G.  
Airborne instrumentation for a cloud physics research project 4454
- Pettit, P.  
Digital-computer programs for an experimental automatic load-dispatching system 3058
- Pettit, W. T.  
See Giles, W. B. 445
- Petty, J. S.  
See Briggs, R. A. 6402
- Petukhov, Yu. I.  
On a swirling annular jet of an ideal fluid 2605
- Petviashvili, V. I.  
Plasma oscillations in the presence of a periodic plasma wave 8115
- Petyt, M.  
The vibration characteristics of a tensioned plate containing a fatigue crack 2405
- Pexton, A. F.  
See Linning, D. L. 570
- Peyrot, A. H.  
Experiments with Bohr integration 7468
- Peyrottes, M.  
See Girard, J. 6513
- Pfeffer, R.  
See Hnatow, M. 8759
- Pfeffer, R. L.  
Wave dispersion in a rotating, differentially heated cylindrical annulus of fluid 3579
- Pfeffer, W.  
Investigations on orifices with corner taps 1925
- Pfefferkorn, G.  
Dust analysis with the aid of the scanning electron microscope "Stereoscan" 2952
- Pfeifer, D. W.  
Reinforced lightweight concrete columns 6986
- Pfeifer, M.  
A uniform theory of the sliding and rolling resistance of macrogeometrically and elastically deformed metallic surfaces 6580
- Pfender, E.  
See Cremers, C. J.  
Eckert, E. R. G. 2064  
9820
- Pfirsch, D.  
Hamilton-Jacobi theory applied to Vlasov's equation 1275  
See also Biskamp, D. 2868
- Pflaum, W.  
Improved performance of gas turbines by reducing the exhaust pressure 9852
- Philbert, M.  
Application of the holographic interferometer in a wind tunnel 3620
- Philbrook, W. O.  
See Williams, R. K. 7281
- Philip, J. R.  
Diffusion by continuous movements 7145
- Philipp, B.  
See Glockner, G. 6223
- Philpizik, W.  
A composite finite difference Ritz method for solving boundary-value and eigenvalue problems 7501
- Phillips, A.  
See Eisenberg, M. A. 7648
- Phillips, B.  
On the design of acoustic liners for rocket engines: Helmholtz resonators evaluated with a rocket combustor 7369
- Phillips, E.  
Wind structure from the amplitude fluctuations in persistent radio meteor echoes 9903
- Phillips, H. B.  
Two-dimensional study of transverse stresses in axially loaded sections 8654
- Phillips, J. W.  
Impact of a rigid sphere on a viscoelastic plate 231
- Phillips, O. M.  
A note on the interaction between internal gravity waves and currents 4426  
The interaction trapping of internal gravity waves 5687
- Phipps, T. E.  
See Adams, J. Q.  
Wahlbeck, P. G. 7125  
8793
- Phung, T. Q.  
See Tiu, C. 8731
- Pian, T. H. H.  
See Leech, J. W. 6048
- Piau, J.-M.  
Improved solutions of the equations of the laminar two-dimensional boundary layer for non-Newtonian fluids in the case of forced convection in stationary regime 7997  
Improved solutions of the equations of the laminar two-dimensional boundary layer for non-Newtonian fluids in the case of natural convection in stationary regime 7998
- Piazzoli, G.  
Equipment for flight vibration tests of the SST Concorde 4154  
Some aspects of the evolution of aeroelastic testing techniques 5609
- Pichakhchi, L. D.  
The thermodynamics of a dense plasma 1182

- Pickard, J.  
FORMAT—Fortran Matrix Abstraction Technique: Vol. 5, Engineering user and technical report 9217
- Pickett, A. G.  
Prediction of the low-cycle fatigue life of pressure vessels 1732  
Cyclic pressure tests of full-size pressure vessels 4281  
Prediction of low-cycle fatigue life of specimens with fabrication flaws 9523
- Picot, J. J. C.  
Interfacial and electrical effects on thermal conductivity of nematic liquid crystals 1950  
Interfacial effects for transient heat conduction in the noncontinuum regime 9959
- Piechocki, W.  
On the existence of a solution of modified von Karman equations 8201
- Pielorz, A.  
The comparison of methods for solving wave problems in inelastic media 6893
- Pierce, A. D.  
Spikes on sonic-boom pressure waveforms 7110
- Pierce, D.  
See Treadgold, D. 8820
- Pierce, W. S.  
See Sullivan, T. L. 2480
- Pierson, W. J.  
Importance of the atmospheric boundary layer over the oceans in synoptic scale meteorology 7437
- Pietikainen, J.  
Effect of plate size, aging, and test temperature on the fracture of martensite in iron-nickel-silicon-carbon steels 6930
- Pietraru, V.  
On earth dam seepage in permeable foundation soils 3839  
Computation of seepage through underground beds 3840
- Pietras, F.  
Thermal stresses in a plane anisotropic Cosserat continuum 682
- Pietraszkiewicz, W.  
On the linear theory of shallow shells 133  
On the multivaluedness of stress functions in the linear theory of shells 134  
Multivalued stress functions in the linear theory of shells 5008  
Multivalued solutions for shallow shells 5942  
Some static problems of shallow shells of revolution: Part 1 5949
- Pietrzak, J.  
On some methods of calculations for prismatic folded plate structures 2369
- Pietrzyk, K.  
Stability of engineering objects on defrosting subsoil 5152
- Pietrzyk, Z. A.  
See Mucha, Z. 3622
- Pietsch, W. B.  
Tensile strength of granular materials 1711
- Pifko, A.  
See Crouzet-Pascal, J. 6890
- Piggott, B. A. M.  
Atmospheric turbulence and aircraft height-keeping accuracy 7432
- Piggott, M. R.  
A three point bend tester for strong fibers 1025
- Pike, E. R.  
Measurement of turbulent velocities from the Doppler shift in scattered laser light 2687
- Pike, J.  
Minimum drag surfaces of given lift which support two-dimensional supersonic flow fields 1883
- Pike, R. W.  
See April, G. C. 30
- Pilkey, W. D.  
Normal-mode solutions for the dynamic response of structural members with time-dependent in-span conditions 6842
- Pilnik, G. P.  
Derivation of the Love number  $k$  from irregularities in the Earth's rotation 966
- Pilot, G.  
See Karst, H. 4204
- Pimsner, V.  
Relationship between the design of a single-stage centrifugal compressor and its performance 2730  
See also Vasilescu, C. A. 8108
- Pince, B. W.  
See Life, J. S. 2985  
Life, J. S. 3886
- Pincus, H. J.  
Sensitivity of optical data processing to changes in rock fabric: Part 1, Geometric patterns; Part 2, Standardized grain patterns; Part 3, Rock fabrics 9500
- Pinker, R. A.  
Mathematical formulation of the Noy tables 8171
- Pinkney, R. B.  
See Popov, E. P. 7912
- Pinkus, O.  
Three-dimensional boundary layers on cones at small angles of attack 6298
- Pinon, R.  
See Freund, J. 9110
- Pinsker, W. J. G.  
Directional stability in flight with bank angle constraint as a condition defining a minimum acceptable value for  $n_p$  5425
- Pinson, L. D.  
Longitudinal vibration characteristics of 1/10-scale Apollo/Saturn V replica model 6852
- Pinus, N. Z.  
The energy of atmospheric macro-turbulence 9986  
See also Vinnichenko, N. K. 9984
- Piontkovskii, A. A.  
Investigation of certain stability-theory problems by the vector Lyapunov function method 3045
- Pipberger, H. V.  
See Klingeman, J. 9170
- Pipes, L. A.  
The computation of the transfer matrix of uniform systems 5763
- Pipkin, A. C.  
Controllable viscometric flows 4315  
See also Chou, S.-I. 2575
- Piquemal, J.  
See Escande, L. 475
- Piriev, N. P.  
See Galin, L. A. 7635
- Pirner, M.  
Flat roofs under wind loading 3411
- Pirogov, E. N.  
See Egorov, V. I. 2942
- Pirumov, U. G.  
Calculation of the flow in a Laval nozzle 2637  
Design of flow in Laval nozzle 3527
- Pisano, W. C.  
See Young, G. K. 8242
- Pisarenko, G. S.  
See Sidnev, V. I. 9554
- Pismenny, V. D.  
See Zemtsov, Yu. K. 6480
- Pister, K. S.  
See Taylor, R. L. 2316
- Pitkin, E. T.  
See Czuchry, A. J. 6505
- Pittman, C. U., Jr.  
Location of action of burning-rate catalysts in composite propellant combustion 9844  
See also Caveny, L. H. 9845
- Pivovarenko, V. N.  
See Skachkov, I. A. 2404
- Piziali, R. A.  
Method for the solution of the aero-elastic response problem for rotating wings 7336
- Pizzella, G.  
See Egidi, A. 8254
- Plagenhoef, S.  
Computer programs for obtaining kinetic data on human movement 2208
- Plakhov, D. D.  
Sound field of a multispan plate 2909  
Finite transducers in the random sound field of an infinite plate 4703  
Correlation in the sound field on an infinite plate acted upon by random pressure fluctuations 5110
- Plander, I.  
Analysis of mechanisms with lower pairs by means of electronic analog computers 5259
- Plateau, J.  
About the meaning of the Griffith condition and the practical application of fracture mechanics to metals 8628

- Platonov, A. K.  
See Kazakova, R. K. 9912
- Platt, R. J., Jr.  
A parametric analysis of surface temperatures of paraboloidal solar concentrators in space 7262
- Platunov, E. S.  
The temperature field of a thin plate under conditions of monotonic heating 4501
- Platus, D. H.  
A note on re-entry vehicle roll resonance 1338
- Platus, D. L.  
Cyclic deformation crew attenuator struts for the Apollo command module 5112
- Platzer, M. F.  
See Hoffman, G. H. 6312
- Plaut, R. H.  
A stability criterion for flutter of a cylindrical panel 5603
- Plazek, D. J.  
Magnetic bearing torsional creep apparatus 3139
- Plehn, H. J.  
The front face angle of the set tooth at straight sharpening 7822
- Pleshanov, A. S.  
Nonisentropic nonequilibrium flow of a gas through a nozzle with friction and heat exchange taken into account 4381
- Plesset, M. S.  
See Solomon, L. P. 700
- Plessmann, K.  
Numerical methods for treating linear and nonlinear systems in the time domain 4834
- Plessner, Y.  
See Kislef, Y. 8329
- Pletcher, R. H.  
Heat transfer and pressure drop in horizontal annular two-phase, two-component flow 3661  
On a finite difference solution for the constant property turbulent boundary layer 8803
- Plint, M. A.  
Traction in elastohydrodynamic contacts: Part 3 4788
- Pliss, V. A.  
On the existence of a family of periodic solutions of a system of differential equations with zero roots 7486  
On the reduction of an analytic system of differential equations to linear form 7487
- Plooster, M. N.  
Nucleation of freezing in supercooled water by cavitation 1183  
See also Jones D. L. 2629
- Plotkin, A.  
A numerical solution for the laminar wake behind a finite flat plate 6287
- Plotkin, J.  
See Williams, R. T. 717
- Plotnikov, P. K.  
Equal-valuedness of the action of the input angular velocity and the signal of the moment sensor on a gyrotachometer 9280
- Plotnikova, L. I.  
See Ivantsov, I. G. 8669
- Plowman, J. M.  
The testing of reinforced brickwork and concrete slabs forming box beams 128
- Pnueli, A.  
Tides in oceans of the form of a cross 2715  
Free tidal oscillations in rotating flat basins of the form of rectangles and of sectors of circles 3577
- Pnueli, D.  
A computation scheme for the asymptotic Nusselt number in ducts of arbitrary cross section 538  
The asymptotic thermal stability of confined fluids 544  
An extension of the Rayleigh-Ritz method to obtain exact values for the natural frequencies and exact modes of vibrations 4120
- Poas, J.  
Theoretical analysis and design of dynamic damper for torsional vibrations 1683
- Pochop, L. O.  
Sky cover influence on total hemispheric radiation during daylight hours 2149
- Pochtman, Yu. M.  
Determination of the frequencies of the natural oscillations of shallow spherical shells by the method of electric simulation 9427
- Pochtovenko, Yu. E.  
Velocities and accelerations in a cable coiled on a drum 340
- Podilchuk, Yu. N.  
The effect of spherical cavity upon the state of stress in an elastic medium, with consideration of couple-stresses 1576  
A two-dimensional elliptical crack in an arbitrary homogeneous field of stress 8410
- Podobin, V. P.  
See Krasilshchikov, A. P. 6326
- Podolskii, A. A.  
See Dianov, D. B. 1378
- Podolskii, D. M.  
Method of analysis of beams composed of segments joined by deformable seams 1613
- Podolsky, Yu. Ya.  
See Vinogradov, G. V. 738
- Podstrigach, Y. S.  
Temperature fields and stresses in bodies with thin coatings 5638  
See also Kit, G. S. 1210
- Podyapolskiy, G. S.  
The coefficient  $\gamma$  in earthquake statistics 9119
- Poggi, L.  
About the distribution of velocity in shock wave 1112
- Pogorelov, A. V.  
Geometric theory of shell stability 3208  
Loss of stability as influenced by imperfect fastening of the shell edge 5068  
Geometrical theory of the stability of shells 7746  
Geometrical methods in the non-linear theory of elastic shells 8461
- Pogorelov, Yu. S.  
Operation of friction disk clutches in misalignment conditions 343
- Pogutse, O. P.  
See Kadomtsev, B. B. 611
- Pohlman, R.  
Efficient mechanical transmitter of acoustical pulses in technical gases 2918
- Poincare, H.  
New methods of celestial mechanics: Vol. 1, Periodic solutions, the non-existence of integral invariants, asymptotic solutions 2995
- Poincelot, P.  
Principles and common applications of relativity 3104
- Point, J. J.  
About a statement of the second law of thermodynamics 1940
- Poirier, Y.  
See Amy, J. 8158  
Amy, J. 8159
- Pokhmurskii, V. I.  
Effectiveness of surface work-hardening as a means of increasing the fatigue and corrosion-fatigue strength of some stainless steels 3347  
See also Zamikhovskii, V. S. 3346
- Polak, E.  
See Cullum, C. D. 1514  
Canon, M. 1527
- Polevichek, E. P.  
Theoretical investigation of the working process in a combustion chamber of an ideal pulsating airjet engine 8960
- Polezhaev, Yu. V.  
On the interacting effects of evaporation, combustion, and coking during decomposition in a high temperature gas stream 5540
- Polhamus, E. C.  
Application of the leading-edge-suction analogy of vortex lift to the drag due to lift of sharp-edge delta wings 1137
- Poliakov, N. A.  
Asymptotic behavior of the solution of the problem in the theory of elasticity for the spherical shell under uneven loadings 4078
- Policella, H.  
See Lemaire, J. 9329
- Polishchuk, V. P.  
See Aronova, N. R. 2875
- Polissar, M. J.  
See Lukin, L. 3889
- Pollack, G. H.  
Input impedance, wave travel, and reflections in the human pulmonary

- Pollack, G. H.** (*Continued*)  
arterial tree: Studies using an electrical analog 6587
- Pollack, I.**  
Differential asynchrony thresholds for auditory pulse trains 6593
- Pollak, H. O.**  
*See* Gilbert, E. N. 784
- Pollard, H.**  
Singularities of the  $n$ -body problem: Part I 7572
- Pollatschek, M. A.**  
*See* Levin, O. 9978
- Pollmann, E.**  
Use of similarity numbers in connection with plain bearings under conditions of varying temperature and viscosity 7454
- Pollock, C.**  
The wheel wear and metal removal mechanisms in vertical spindle abrasive machining of mild steel 266
- Pollock, F.**  
Thermodynamics of rotating liquid He II 5467
- Pollock, J. C.**  
*See* King, E. Y. 3702
- Polozhii, G. N.**  
One problem in the theory of axisymmetric potentials and a round system and a ring die 1584  
Solution of the fundamental bi-harmonic problem of the theory of elasticity for a semicircle and a circle with a cut by the method of summed representations 9288
- Polshin, D. E.**  
*See* Dovnarovitch, S. V. 4198
- Poltavskii, L. N.**  
*See* Butkovskii, A. G. 58
- Poluektov, R. A.**  
*See* Pervozvanskii, A. A. 37
- Polukhin, V. P.**  
*See* Levitskii, N. I. 8712
- Polyakov, A. E.**  
Investigation of the effect of the Reynolds' number on the magnitude of losses in cascades with blades of small aspect ratio 482
- Polyakov, E. V.**  
*See* Tsiklis, D. S. 5466
- Polyakov, G. G.**  
Reaction thrust compensation of perturbing forces of non-Newtonian attraction 7573
- Polyakov, L. M.**  
Tensometer for mechanical testing of materials 2521
- Polyakov, V. K.**  
*See* Smolin, V. N. 4510
- Polyakov, Yu. A.**  
Nonstationary heat exchange in the reflection of a shock wave 1969
- Polyanskii, O. Yu.**  
Applicability of the law of plane sections to hypersonic motion of deformable bodies in inhomogeneous nonstationary media 972
- Polydorova, M.**  
The preparation and properties of a platinum oxide aerosol 8207
- Pomeroy, R. J.**  
Axial curvature and residual stress measurement in thin-walled tubes 5941
- Pommeret, M.**  
*See* Robinson, J. R. 4266
- Pond, S.**  
Some effects of buoy motion on measurements of wind speed and stress 2977
- Ponomarenko, Iu. B.**  
Occurrence of space-periodic motions in hydrodynamics 5439
- Ponomarev, V. M.**  
Theory of motion control of space vehicles 7352
- Ponter, A. B.**  
The measurement of contact angles under conditions of heat transfer when a liquid film breaks on a vertical surface 3477
- Ponter, A. R. S.**  
Convexity conditions and energy theorems for time independent materials 5890
- Pontryagin, L. S.**  
Mathematical theory of optimal processes, 2nd improved edition 6681
- Pook, L. P.**  
The effect of friction on pin jointed single edge notch fracture toughness test specimens 6938
- Poole, D. M.**  
*See* Nicholas, M. 5716
- Poots, G.**  
Theoretical results for variable property, laminar boundary layers in water with adverse pressure gradients 7992
- Pop, I.**  
Unsteady boundary-layer around a rotating body 2670  
Effect of periodic suction on the unsteady free convection flow past a vertical porous flat plate 2781  
On unsteady stagnation flow towards a rotating lamina 4343  
On the periodical boundary-layer around bodies of revolution 8004  
On the hydromagnetic flow near an accelerated plate 9862
- Popa, O.**  
Contributions to the calculation of hydrofoil cascades by means of the singularity method 2599  
*See also* Anton, I. 498
- Pope, C. G.**  
Pore structure investigation using gas phase flow through microporous solids containing adsorbed molecules 9106
- Pope, G. G.**  
The design of optimum structures of specified basic configuration 2528  
On the bifurcational buckling of elastic beams, plates and shallow shells 3192
- Popelar, C. H.**  
Dynamic stability of the flexural vibrations of a thin-walled beam 8560
- Popescu, G.**  
*See* Sesan, A. 3389
- Popescu, V.**  
New optimizing solutions for the transport of fluids through conduits with applications in the oil industry 7033
- Popov, A. F.**  
Investigation of the kinematics of a three-dimensional four-bar mechanism with a floating connecting-rod 9606
- Popov, E. P.**  
Cyclic yield reversal in steel building connections 7912  
*See also* Goodman, J. R. 5912
- Popov, G.**  
*See* Girkorov, G. 4607
- Popov, N. N.**  
*See* Koshelev, L. I. 285
- Popov, S. A.**  
*See* Matveevskii, R. M. 3883
- Popov, V. M.**  
Incompletely controllable positive systems and applications to optimization and stability of automatic control systems 3048
- Popov, V. N.**  
*See* Ivanova, Z. A. 3641
- Popov, Yu. S.**  
Low-pressure cold-cathode Penning discharge 5582
- Popovic, P.**  
Permanent cannulation of blood vessels in mice 5740
- Popovic, V. P.**  
*See* Popovic, P. 5740
- Popovich, E. G.**  
*See* Bogachuk Kozachik, K. A. 7996
- Popovich, V. V.**  
*See* Chaevskii, M. M. 2758
- Popp, H. P.**  
*See* Bauder, U. 5471
- Poppendiek, H. F.**  
Two-dimensional transport models for the lower layers of the atmosphere 4761
- Poppitz, J. V.**  
Simplified dynamics of hardened buried buildings 6994
- Popplewell, N.**  
*See* Gladwell, G. M. L. 4145
- Porcelli, G.**  
Optimal attitude control of a spinning space-body: A graphical approach 2269
- Poreh, M.**  
Accelerations, turbulent trajectories and space-time correlations in turbulent shear flow 3557
- Porta, E. W.**  
*See* Gill, W. N. 6421



- Porter, B.**  
Performance of optimal control systems when some of the state variables are not measurable 8368  
*See also* Crossley, T. R. 3062
- Porter, J. R.**  
*See* Duff, R. E. 1926
- Porter, J. W.**  
Self-excitation of acoustic oscillations by gaseous adsorption 661  
Direct contact heat transfer between immiscible liquids in turbulent pipe flow 9814  
*See also* Bromley, L. A. 1242
- Porter, K. E.**  
Liquid flow in packed columns: Part 1, The rivulet model 6547  
Liquid flow in packed columns: Part 3, Wall flow 9968  
Liquid flow in packed columns: Part 2, The spread of liquid over random packings 9969
- Porter, L. D.**  
*See* Sforza, P. M. 7252
- Porter, W. A.**  
On function space pursuit-evasion games 1522  
A minimization problem and its applications to optimal control and system sensitivity 6645
- Portnoy, H.**  
The slender wing with a half body of revolution mounted beneath 5417
- Posakony, G. J.**  
*See* Hagemaiier, D. 8671
- Posel, K.**  
The coronary artery system viewed in the light of the principle of conservation of energy 8303
- Post, D.**  
Corneal studies by photoelasticity 759
- Postolnik, Yu. S.**  
Radiant heating of simple shapes 6408
- Potapenko, A. E.**  
*See* Mikhailenko, L. I. 3650
- Potetyunko, E. N.**  
*See* Nikitin, A. K. 467
- Potillo, R. W.**  
*See* Bond, C. E. 2853
- Potter, A. F.**  
*See* Brockley, C. A. 6860
- Potter, J. H.**  
Handbook of the engineering sciences: Vol. 2, The applied sciences 4478  
*See also* Levy, M. J. 9775
- Potter, O. E.**  
*See* Woollard, I. N. M. 7403
- Potter, O. W.**  
*See* Rayfield, G. T. 3610
- Pottsepp, L.**  
*See* Shi, Y.-Y. 9041
- Poukey, J. W.**  
Two-dimensional, time-independent solutions for plasma moving through a uniform transverse magnetic field 1293
- Poulos, H. G.**  
The settlement behavior of single axially-loaded incompressible piles and piers 7807  
*See also* Davis, E. H. 251
- Povinelli, L. A.**  
Solid-propellant combustion instability and the role of velocity coupling 8956
- Powe, R. E.**  
*See* Bishop, E. H. 8910
- Powell, B. A.**  
The production of 15  $\mu\text{m}$  liquid hydrogen droplets 3830
- Powell, B. J.**  
The calculation of the pressure distribution on a thick cambered airfoil at subsonic speeds including the effects of the boundary layer 1134
- Powell, D. G.**  
*See* Earles, S. W. E. 4777
- Powell, G. H.**  
Analysis of orthotropic steel plate bridge decks 9582
- Powell, R. L.**  
Transient thermal response of plane Couette flow with viscous heat generation: Effect of a solid conducting boundary 2775  
*See also* Hovanesian, J. D. 3357
- Powell, R. W.**  
*See* Ho, C. Y. 6374
- Power, G.**  
Reduction of viscous flows having orthogonal magnetic and velocity field distributions 595  
Reducible axisymmetric magneto-gasdynamical flows 7309
- Powers, J. E.**  
*See* Mather, A. E. 9803
- Powers, W. E.**  
Measurements of the current density distribution in the exhaust of an MPD arcjet 5592
- Powers, W. F.**  
A method for comparing trajectories in optimum linear perturbation guidance schemes 6503
- Powers, W. L.**  
A graphical presentation of magneto-gasdynamical accelerator and generator performance characteristics 1291  
Transient wave growth in magneto-gasdynamical generators 5565
- Powling, J.**  
Experiments relating to the combustion of ammonium perchlorate-based propellants 6446
- Poynton, W. A.**  
The free radial expansion of thin cylindrical brass tubes using explosive gas mixtures 2472
- Pozdeev, A. A.**  
Calculation of the stress-strain state in the case of creep in a nonuniform temperature field 9324
- Pozzo, E.**  
The rheological behavior of the dynamically stressed concrete: Experimental investigation 7884
- Prabhakara, M. K.**  
*See* Sundara Raja Iyengar, K. T. 2298
- Prabhu, S.**  
Some integrals involving the Euler and Bernoulli's numbers 5774
- Pracht, W. E.**  
*See* Daly, B. J. 367
- Prager, S.**  
*See* Strieder, W. C. 9967
- Prager, W.**  
Optimal structural design for given stiffness in stationary creep 2378  
Variational principles for elastic plates with relaxed continuity requirements 5027  
Optimality criteria in structural design 6168  
Bounds on bending moments caused in indeterminate beams by bounded anelastic curvatures 7868  
On the formulation of constitutive equations for living soft tissues 8301  
Theory of perfectly plastic solids 8432  
*See also* Huang, N. C. 4112
- Prahlad, T. S.**  
Wall similarity in three-dimensional turbulent boundary layers 2663
- Prakash, R.**  
*See* Bhardwaj, R. K. 722
- Prakash, S.**  
*See* Singh, B. 3276  
*See* Krishna, J. 6907  
*See* Saran, S. 8597
- Prakash, V.**  
*See* Sud, Y. C. 591
- Pranab, K. D.**  
A theoretical approach to the determination of the amount of wear during sliding between surfaces 5722
- Prangishvili, L. V.**  
*See* Tavkhelidze, D. S. 8715
- Prasad, P.**  
Nonlinear waves in radiation-gasdynamics 2631
- Prasad, R.**  
Effect of a high-frequency spatially uniform external electric field on a plasma 2864
- Pratt, G. C.**  
Recent developments in polytetrafluorethylene-based dry bearing materials and treatments 5727
- Pratt, N. H.**  
*See* Bray, K. N. C. 3528
- Prausnitz, J. M.**  
*See* Preston, G. T. 2757
- Preckshot, G. W.**  
Device for production of gas-free liquids or vapors 2803
- Predeleanu, M.**  
*See* Hlavacek, I. 876
- Predmore, R.**  
*See* Jellison, J. 1422
- Preece, F. R.**  
*See* Higgins, T. R. 7918

- Preg, S. M., Jr.  
See Culver, C. G. 3198
- Preining, O.  
The cross sensitivities of the Royco aerosol photometer PC 200 7414
- Preiningerova, V.  
Problems of convergence when solving partial differential equations on automatic computers 6637
- Prelewicz, D. A.  
Nonsteady coaxial arcs in fully developed plasma flow 3773
- Prentice, J. E.  
Sediment transport in estuarine areas 1072
- Prentice, J. S.  
See Graessley, W. W. 7030
- Presby, H. M.  
Incident and reflected ionizing shock structure 4472
- Preston, G. T.  
Transport properties of cryogenic liquids and their mixtures 2757
- Presz, W. M., Jr.  
Unsteady boundary layer analysis for two-dimensional laminar flow 8794
- Pretor, K. G.  
See Seemann, H. J. 3317
- Pribylov, B. P.  
See Katsev, P. G. 9555
- Price, C. M.  
Optimum impulses for gravity-free rocket motion 7355
- Price, D.  
Contrasting patterns in the behavior of high explosives 7363
- Price, E. W.  
See Hightower, J. D. 6447
- Price, G. R.  
Functional changes in the ear produced by high-intensity sound: Part 1, 5.0-kHz stimulation 9161
- Price, J. F.  
See Goldstein, A. A. 6638
- Priestland, C.  
Sensitivity variations in the Bayard-Alpert ionization gauge: Part 1, Experimental measurements with a molecular beam probe and in a randomized gas 2648
- Priestley, C. H. B.  
Handover in scale of the fluxes of momentum, heat, etc., in the atmospheric boundary layer 2145
- Prigent, M.  
See Bloch, O. 4487
- Prigogine, I.  
Introduction to thermodynamics of irreversible processes 7204
- Prikhodko, O. B.  
See Bogdanov, O. I. 1478
- Prince, M. R.  
A new approach to the yield criterion for isotropically reinforced concrete slabs 5225
- Pringle, O. A.  
Environmental fatigue testing of molded plastics for prosthetic heart valves 9167
- Pringle, R., Jr.  
Exploitation of nonlinear resonance in damping an elastic dumbbell satellite 4639
- Pris, R.  
Aerodynamic studies of buildings with curtain walls 4273
- Pritchard, A. J.  
Stability boundaries for a two-dimensional panel 2886
- Probert, S. D.  
Heat transfers across cavities 8919  
See also Brooks, R. G. 3367
- Probstein, R. F.  
See Shorenstein, M. L. 3516
- Procter, E.  
Shakedown investigations on partial penetration welded nozzles in a spherical shell 7846
- Prok, G. M.  
See Monnin, C. F. 9879
- Prokhodtseva, L. V.  
See Drozdovskii, B. A. 3327
- Prokopius, P. R.  
Experimental investigation of the dynamics of water rejection from a matrix type of hydrogen-oxygen fuel cell 5458
- Propoi, A. I.  
Synthesis of automatic systems optimal in the mean 5822  
Synthesis of optimal-in-the-mean automatic systems 6678
- Proskuriakov, A. P.  
On constructing periodic solutions of quasi-linear nonself-contained systems with one degree of freedom, when amplitude equations possess multiple roots 3225  
Method of Poincare applied to the theory of nonlinear oscillations for cases of degeneration of the system 8528
- Proskuryakov, G. V.  
Ensuring optimal conditions for turbomachines when designing stationary gas turbine plants 2024
- Proskuryakov, V. B.  
See Razvalov, A. S. 276
- Prosnak, W. J.  
See Fiszdon, W. 2704
- Protopopov, V. P.  
See Barantsev, R. G. 18
- Protos, A.  
Hydroelastic forces on bluff cylinders 5438  
See also Goldschmidt, V. W. 5291
- Protsenko, V. C.  
See Belik, G. I. 3124
- Protsenko, V. S.  
The torsion of a nonuniform elastic layer 3122  
The torsion of a generalized elastic half-space 4019
- Prudhomme, R.  
On the dispersion equation of multi-reactive gas mixtures 426
- Pruppacher, H. R.  
An experimental determination of the drag on a sphere at low Reynolds numbers 3498
- Prussing, J. E.  
Obtaining real solutions for nonlinear systems using certain transformation techniques 7535
- Prusty, S.  
A general approach for solving higher order nonlinear systems by delta method 1457
- Pryakhin, V. V.  
See Filippov, G. A. 5442
- Przirembel, C. E. G.  
Analysis of axisymmetric supersonic turbulent base flow 8003
- Przybyszewski, J.  
Lubrication of sliding and rolling element electrical contacts in vacuum 6577
- Pshenichnov, G. I.  
Small free vibrations of elastic shells of revolution 6010
- Pshenichnyi, V. D.  
Investigation of supersonic turbine blading 9854
- Pu, S. L.  
See Hussain, M. A. 5848  
Hussain, M. A. 6705
- Puchkov, A. A.  
See Nazarov, G. I. 3481
- Pugachev, G. S.  
See Volovets, L. D. 1007
- Pugachev, V. S.  
Optimum training systems 9266
- Pugh, E.  
Plasma wind tunnel studies of collision-free flows and shocks 3787  
See also Schneiderman, A. M. 3623
- Pugh, H. L. D.  
See Convery, E. 967
- Pugh, P. G.  
See Ward, L. C. 2745
- Pugin, V. A.  
See Biderman, V. L. 110
- Pugliese, J. M.  
See Starfield, A. M. 255
- Pujara, K. K.  
Forced vibrations of a two layered beam arrangement 8534
- Pujol, A.  
See Macagno, E. O. 7928
- Pujol, Y.  
Composition and enthalpy determination of gaseous mixtures at high temperature, taking into account their second virial coefficient 4490  
Application of the "inverse method" to the study of stable detonations in gaseous mixtures 7291
- Pule, C.  
See Holt, A. G. J. 9230
- Pume, D.  
Shear strength of vertical joints between concrete elements 3408
- Purcell, E. M.  
See Berg, H. C. 355

- Purgalis, P.  
See Sawyer, R. F. 2018
- Puri, P.  
Thermal shock on the lateral surface  
of a sphere 2939  
See also Soundalgekar, V. M. 7922
- Purushotham, G.  
On kinematic properties of hydro-  
magnetic fluid flows 6462
- Pushkin, S. B.  
See Ermakov, V. I. 3257
- Pust, L.  
Instrumentation for dynamic model  
tests 3255
- Puthoff, R. L.  
Reactivity changes of a fast reactor  
core due to elastic-plastic strain  
and creep 5901
- Putman, T. H.  
An active stabilization system for  
vehicles and other massive bodies 4916
- Putyata, V. I.  
Theoretical profiles of a wing with  
given geometrical characteristics 5414
- Putyatin, V. V.  
Problem of the action of a vector  
nonsteady random function on a  
multidimensional mechanical sys-  
tem 8327
- Py, B.  
Thermal radiation of microrough  
metals or metal dispersions 8075

## Q

- Quan, V.  
Solution for a shock wave of bi-  
modal distribution using Bhatnagar-  
Gross-Krook models 8779  
See also Kliegel, J. R. 5349
- Quarmby, A.  
A finite difference analysis of de-  
veloping slip flow 4395  
An analysis of turbulent flow in  
concentric annuli 8008  
Improved application of the von  
Karman similarity hypothesis to  
turbulent flow in ducts 9739
- Quast, A.  
Influence of the wing parameters on  
the flight performance of a glider 9897
- Quatre, M.  
See Kerisel, J. 4195
- Queijo, M. J.  
Theory for computing span loads  
and stability derivatives due to  
sideslip, yawing, and rolling for  
wings in subsonic compressible  
flow 5416
- Quemard, C.  
See Tsen, L. F. 3553
- Quimpo, R. G.  
Stochastic analysis of daily river  
flows 2965
- Quinn, B.  
The hypersonic roll damping deriva-  
tive of a blunt cone 2706  
Blunt-cone roll-damping derivative 7166

- Quinn, J. A.  
See Mitchell, W. T. 3679

## R

- Raal, J. D.  
See Hamielec, A. E. 8768
- Raatz, E.  
See Ahrens, D. 1481
- Rabenhorst, H.  
See Kottler, W. 701
- Rabinovich, S. V.  
Calculating the bending strength and  
stiffness of curved beams 3162
- Rabotnov, Yu. N.  
Effect of stress concentrations on  
long-term strength 4228  
See also Mileiko, S. T. 6729
- Racoillet, C.  
On a nonclassical calculation method  
for reinforced concrete beams 5914
- Radaj, D.  
Detection of Lueders' lines by  
means of brittle coating 9547
- Radcliffe, C. W.  
See Suh, C. H. 1763
- Rader, D.  
On the dynamics of crack growth in  
glass 7831  
See also Calvit, H. H. 6891
- Radev, S. P.  
Shock-wave in a slightly rarefied gas  
for moderate Mach-numbers 8780
- Radhakrishnan, V. N.  
Nucleation in boiling liquids 7271
- Radoev, B.  
See Scheludko, A. 9633
- Radu, A.  
Saint Venant problem for inhom-  
ogeneous rods 104  
Torsion of nonhomogeneous elastic  
bars 7612  
On the deformation plane of an elas-  
tic, isotropic, nonhomogeneous  
body 9316
- Radu, T.  
Theory and practice of static and  
dynamic balancing of machines 6854
- Radulescu, E.  
See Constantinescu, V. N. 8292
- Radwanski, A.  
See Gomulinski, A. 7710
- Radzhabov, R. R.  
Formulation of Green's tensor for  
the first boundary-value problem  
of the theory of elasticity 89  
Formulation of Green's tensor for  
the first problem of the theory of  
elasticity for the internal region of  
an ellipsoid, the outside of a sphere  
and a cone by the method of least  
squares 90
- Radziszewski, B.  
See Broniarek, C. 9408
- Rae, W. G.  
Fast model search control systems  
Stability criteria for control systems  
with one nonlinear element 1546  
3047
- Rafal, M. D.  
Discrete dynamic optimization ap-  
plied to on-line optimal control 2264
- Rafalski, P.  
Lagrangian approach to the non-  
linear boundary heat-transfer prob-  
lem 4505  
The Lagrangian formulation of the  
dynamic thermoelastic problem for  
mixed boundary conditions 4711  
Lagrangian formulation of dynamic  
thermoelastic problem 8199  
A variational principle for the  
coupled thermoelastic problem 9938
- Raftopoulos, D.  
Longitudinal impact of two mutually  
plastically-deformable missiles 9478
- Ragab, F. M.  
E-Transforms: Part 2 3007
- Ragg, B. C.  
Necessary conditions for the optimal  
control of a system with time-  
varying transport lags 1525
- Raggett, G. F.  
See Poots, G. 7992
- Raghavan, C. V.  
See Subrahmanyam, S. V. 9934
- Raghavan, P.  
See Seshadri, V. 7533
- Raghu, D.  
Mohr's circle and principal stress:  
A new approach 865
- Raghupathi Rao, C.  
A modified ultrasonic stroboscope  
for velocity measurements 1800  
Ultrasonic stroboscopes for disper-  
sion measurements 1927
- Ragland, K. W.  
Observed structure of spray detona-  
tions 5620
- Ragone, D. V.  
See Dunlap, R. W. 294
- Ragsdale, R. G.  
Simple equations for calculating  
temperature distributions in radi-  
ating gray gases 8923
- Ragulsis, K. M.  
See Ionushas, A. 7581
- Rai, L.  
See Gupta, A. S. 7084
- Raibman, N. S.  
Statistical methods of construction  
of models of control objects 819
- Raichlen, F.  
Motions of small boats moored in  
standing waves 8265
- Raikes, W. M.  
See Charnes, A. 2197
- Railly, J. W.  
Design of mixed flow cascades by  
Ackeret's method 8022
- Rainal, A. J.  
First and second passage times of  
sine wave plus noise 5769
- Rainbird, W. J.  
Turbulent boundary-layer growth  
and separation on a yawed cone 7139
- Raines, G. E.  
See Walters, C. T. 5784

- Rainey, A. G.  
See Doggett, R. V., Jr. 1884
- Rajade, J.  
See Courbon, J. 4081
- Rajagopalan, K. S.  
Exploratory shear tests emphasizing percentage of longitudinal steel 4269
- Rajagopalan, R.  
Some flow problems in micropolar fluids 4319  
See also Bhatnagar, R. K. 6219
- Rajagopalan, T.  
Response optimization of feedback control systems with reference to single-time-constant ideal 8364
- Rajan, V. N.  
See Subba Rao, A. V. 1238
- Rajaratnam, N.  
The Prandtl tube as a Preston tube 374  
Plane turbulent reattached wall jets 394  
Hydraulic jumps below abrupt symmetrical expansions 1066  
Reattached wall jets 7079  
Yaw probe used as Preston tube 9727
- Raju, I. S.  
Stiffness matrices for sector elements 8681
- Rakhimov, A. T.  
See Zemtsov, Yu. K. 6480
- Rakhmanov, A. S.  
The critical crack size in assessing the brittleness of a steel 1005
- Rakhmatulin, Kh. A.  
Propagation of elastic waves from a spherical cavity on the boundary of which there act nonuniform stresses 7788
- Rakowski, G.  
A matrix method on computation of the straight bars of stability 5044
- Rakowski, J. E.  
See Mote, C. D., Jr. 7764
- Raleigh, C. B.  
Mechanisms of plastic deformation of olive 6909
- Ralston, A.  
Mathematical methods for digital computers 3933
- Ralston, H. J.  
See Lukin, L. 3889
- Ram, R.  
Vorticity generated behind shock waves in conducting gases 9870
- Rama, S.  
On the analytical determination of thermal field in the rods of pressurized water nuclear reactors 7224
- Ramachandran, A.  
See Nair, B. G. 7276
- Ramakers, H.  
Theoretical analysis of the dynamic longitudinal stability of aircraft at constant glidepath 1892
- Ramalingam, S.  
Microphotoplasticity techniques for the analysis of metal working problems using laser systems 2506
- Ramamoorthy, P.  
Karman-Pohlhausen method for MHD boundary layers 608
- Ramamurthy, A. S.  
See Seetharamiah, K. 4320
- Ramamurthy, L. N.  
Ultimate load analysis of reinforced concrete columns under axial load and skew bending 8691
- Raman, K. R.  
Korotkoff sounds at systole: A phenomenon of dynamic instability 8304
- Ramanaiah, G.  
Effect of lubricant inertia in bearings with a non-Newtonian lubricant 1428  
Inertia effects in hydromagnetic lubrication: Part 2, Squeeze film bearing 2979  
Hydromagnetic pressurized bearing with converging and diverging lubricant films 6584  
Inertia effects in hydromagnetic lubrication: Part 1, Externally pressurized bearing 8295
- Ramana Murthy, K. V.  
Flow routing analog based on mean velocities 4330
- Ramana Rao, V. V.  
Hydromagnetic flow near an accelerated plate in the presence of a magnetic field 8113  
See also Vidyandhi, V. 8988
- Ramanathan, N.  
See Muthiah, P. L. 754
- Ramani, N.  
See Jain, V. K. 8967
- Ramano, F.  
Noncircular rings under shear load 1620
- Ramanujam, N.  
See Srinivasan, R. J. 8594
- Ramapriyan, H. K.  
See Srinath, M. D. 2230  
Srinath, M. D. 8350
- Ramaswamy, E. R.  
A performance estimate of a granular solids heater 8090
- Ramjee, V.  
See Badri Narayanan, M. A. 5395  
Badri Narayanan, M. A. 6300
- Ramm, D. V.  
See Dorzhiev, D. D. 5081
- Ramm, W.  
See Kloppel, K. 8503
- Rampal, V. V.  
A transistorized wave height recorder for model and prototype studies 8863
- Ramsey, J. W.  
See Goldstein, R. J. 8102
- Ramsey, T. L.  
See Huang, J. H. 6546
- Ramshaw, C.  
A technique for drop-size measurement by direct photography and electronic image size analysis 8212
- Rana, M. H.  
Measurement of small deformation of actual materials by reflection interferometry 7851
- Rance, H.  
Plastic flow and fracture in a torsionally stressed planetary sphere 5896
- Rand, S.  
Electron-plasma wave amplitudes associated with particle phase mixing 1278
- Randall, M. D.  
See Pattee, H. E. 6207
- Randall, M. J.  
Fast programs for layered half-space problems 6640
- Randhava, S. S.  
An analysis of turbulent flow in concentric annuli 9740
- Raney, J. P.  
Identification of structural systems by use of near-resonance testing 4144
- Ranganathan, S.  
Sound dispersion in dilute monatomic gases 2107
- Ranga Reddy, P.  
See Sastry, P. G. 4323
- Ranger, K. B.  
Flow due to a point source of momentum in a viscous fluid contained in a sphere 6244  
Multipole flows of a viscous fluid exterior and interior to a circular cylinder 7068
- Raniecki, B.  
See Nowacki, W. K. 9954
- Rank, P. H., Jr.  
See Tsakonas, S. 4450
- Rankilor, P. R.  
The preparation and use of a stress-sensitive material in multilayer photoelastic models 6125
- Ranlet, D.  
See Ramano, F. 1620
- Rannacher, J.  
Investigation of compressing cascades in the critical region of Reynolds numbers and the peculiarities of the boundary layer conversion 2726
- Ranov, T.  
See Goller, H. 5312
- Ransleben, G. E., Jr.  
Experimental determination of steady and unsteady loads on a submerged supercavitating hydrofoil 8271
- Rao, A. K.  
Accurate determination of interference in pin joints 5201  
See also Raju, I. S. 8681
- Rao, A. R. K.  
See Kozicki, W. 8221
- Rao, K. R.  
Electrical analog study on the periodic heat flow through a brick wall 4859
- Rao, K. S.  
See Coull, A. 3167
- Rao, M. N.  
See Guha, D. K. 6226
- Rao, R. A.  
See Sachdev, K. 6585



- Rao, S. N.  
See Sreedhar, N. 769
- Raphael, C.  
See Venkatraman, B. 2361
- Rapoport, I. M.  
Dynamics of elastic containers partially filled with liquid 6344
- Rapoport, M. B.  
Recordings of variable density and synchronous stacking of signals on an emulsion layer 1390
- Rapp, E. G.  
See Cherry, J. T. 4208
- Rapson, J. E.  
International hovercraft conference 1968: Research and development 6488
- Rarity, B. S. H.  
See Mowbray, D. E. 1151
- Rasizade, Ya. M.  
See Askerov, B. A. 3441
- Raske, T. F.  
Dynamic response of plates due to moving loads 3239
- Rasmussen, M. L.  
See Elliott, J. P. 5370  
Fiorino, T. D. 7101
- Rasmussen, R. E. H.  
See Hansen, B. W. 9628
- Raspovov, B. M.  
Problems in the optimum control of heat- and mass-transfer processes during drying 4899
- Raspovov, O. M.  
See Kopytenko, Yu. A. 9869
- Rassi, M.  
Influence of the solid discharge on the tangential friction and on the law of velocity distribution at the bottom of a canal 1069
- Rastrigina, E. F.  
See Ainbinder, S. B. 4223
- Rata, J. M.  
Remote measurement on rotary machines up to 100°C and 7000 g 302
- Rathe, E. J.  
Evaluation methods for total noise exposure 9921
- Ratkowski, J. J.  
Factors relative to high-amplitude galloping 6811
- Ratkowsky, D. A.  
Laminar flow in regular polygonal shaped ducts with circular centered cores 5295  
See also Hagan, S. L. 7034
- Ratnawat, H. P.  
Unsteady flow of Bingham plastic between two eccentric circular cylinders 5268
- Ratych, L. V.  
Test of effective coefficients for stress concentrations 1745
- Raub, W. F.  
See Yamamoto, W. S. 5747
- Raud, J.  
Vibrating string theory: Establishment of formulas for strings with rigid end-clamps. Application of these formulas to experimental study of stress relaxation in pre-stressing steel rods in concrete 3229
- Rausch, W.  
See Bedenig, D. 9860
- Rautu, S.  
On the calculation of structures of prefabricated elements 4255
- Ravin, V. S.  
A steady-state heat conduction problem 5482
- Ravindra, D. K.  
See Rampal, V. V. 8863
- Rawling, A.  
Passive determination of homing time 6504
- Rawlings, B.  
Inflated ductile metal structures 914
- Rawlins, C. B.  
See Fricke, W. G., Jr. 278
- Ray, A. K.  
Integral method for incompressible flow in three-dimensional laminar boundary layer 2662
- Ray, K. C.  
Influence coefficients for bending moments and shears for a grid structure under action of vertical loads: Application to bridges 6996
- Ray, M.  
Steady laminar flow of a Reiner-Rivlin fluid in an annulus, in the presence of a radial magnetic field 2576
- Rayfield, G. T.  
Microminiature Pirani gage for measurements of low pressures 3610
- Rayment, D. L.  
See Majumdar, A. J. 6122
- Raynor, S.  
See Petrof, R. C. 1222  
Petrof, R. C. 9943
- Razelos, P.  
Experimental and analytical study of the combined geometric analog computer 3028
- Razner, R.  
Electromagnetic influences in a hydrogen-oxygen rocket combustor 5532
- Razorenov, V. F.  
Towards a method of determining the liquid limit of a soil 5140
- Razumovskaya, I. V.  
Microhardness of glasses as a function of load 8670
- Razvalov, A. S.  
Determination of the number of cycles to failure for processes with arbitrary  $S_{max}$  and  $R$  276
- Rea, D.  
A source of damping produced by the interaction of close-standing buildings 4151
- Rea, D. G.  
See Buhl, D. 4647
- Rea, D. P.  
See Jayawant, B. V. 6662
- Read, A. J.  
Ignition of wool in air: Part 2, Effects of sample size 577
- Read, J. E.  
See Harris, C. L. 3866
- Read, S. M.  
See Bromley, L. A. 1242
- Rebinder, P. A.  
See Pashkovski, V. G. 2475
- Rechardt, T.  
Flexural behavior of reinforced concrete beams at working loads 9572
- Rechowicz, M.  
Heat transfer across pressed contacts at low temperatures 6386
- Recht, R. F.  
See Hoggatt, C. R. 1000
- Reckling, K. A.  
Buckling study of a rectangular plate in the plastic range 8513
- Reddaway, J. L.  
See Riley, V. R. 3331
- Reddy, D. P.  
Stress waves in nonhomogeneous elastic rods 7785
- Reddy, K. C.  
Rarefied-gas flow in the Knudsen layer 5368
- Reddy, K. V. S.  
Maximum spoutable bed depths of mixed particle-size beds 7402
- Reddy, M. N.  
Lateral vibrations of plane curved bars 4124
- Reddy, N. M.  
A method for measuring Reynolds number, viscosity, and atom concentration in hypervelocity nozzles 424
- Reddy, R. V.  
See Pollack, G. H. 6587
- Reddy, V. S.  
See Venkayya, V. B. 6985
- Reddy, Y. R.  
Theory and performance of water jet pump 3604  
Theoretical prediction of discharge coefficients for Herschel type smooth venturimeters 5449
- Redekopp, L.  
See Charwat, A. F. 8103
- Redner, S.  
Photoelastic model studies of Wye manifold branches 6960
- Reece, F. N.  
See Bouchillon, C. W. 5735
- Reed, G. W.  
See Schneider, P. J. 653
- Reed, N. L.  
See Burke, J. J. 4055  
Burke, J. J. 4056
- Reed, R. M.  
See Findley, W. N. 878
- Reejhsinghani, N. S.  
Laminar dispersion in capillaries: Part 5, Experiments on combined natural and forced convection in vertical tubes 2783

- Rees, D.  
See Goltien, J. W. 6083
- Rees, W. H.  
See Clulow, E. E. 7282
- Reese, C. D.  
Ductile creep rupture of shells with strain hardening and time-dependent loading 2481
- Reese, D. R.  
A 400,000 force-pound, eight-exciter electrohydraulic vibration system for space vehicle testing 4644
- Reeve, P. J.  
A method of approximating to pure time delay 3966
- Regel, V. R.  
Comparison of temperature-time dependence relationships on the hardness of bodies in the case of cyclic loading 9088
- Regele, Z.  
See Czerny, Gy. 9490
- Regirer, S. A.  
See Kulikovskii, A. G. 2033
- Regts, E. H.  
See McCorquodale, J. A. 6231
- Rehbinder, P. A.  
See Markov, A. I. 6104
- Rehm, R. G.  
Radiative energy addition behind a shock wave 7991
- Reichenbach, H. W.  
See Struck, W. G. 3738
- Reid, W. H.  
See Gage, K. S. 4351
- Reid, W. P.  
Steady-state temperature in a triangle 5480
- Reiffenstein, J. M.  
On the formation of the rings of Saturn 9031
- Reil, K.  
An apparatus for the production of uniform sized water drops at desired time intervals 8750
- Reimal, L. R.  
See Parts, R. R. 2060
- Reiman, T. C.  
Laminar flow over rectangular cavities 3503
- Reimann, M.  
Estimation of the uncertainties in the enthalpy drop during isentropic expansion of steam 2753
- Rein, M. V.  
See Laricheva, V. V. 5828
- Reineck, H.  
A study of tightening strap measuring systems subjected to shocks 5129
- Reinecke, W. G.  
An interferometric study of the turbulent wake behind a hyper-sonic, sharp, slender cone 5332
- Reinisch, R.  
See Mikyska, L. 1248
- Reinmann, J. J.  
See Monnin, C. F. 9875
- Reipert, Z.  
Fourier series with terms satisfying the beam boundary condition 3156
- Reipka, R.  
The propagation of shock waves through constricted ducts 410
- Reismann, H.  
Plane-strain dynamic response of a cylindrical shell: A comparison study of three different shell theories 938  
Forced axisymmetric motion of shallow spherical shells 2429  
Response of a cylindrical shell to an inclined, moving pressure discontinuity (shock wave) 6033  
Forced motion of cylindrical shells 6834  
Forced motion of elastic plates 8541  
See also Lee, Y. -C. 9417
- Reiss, E. L.  
See Callegari, A. J. 9381
- Reissner, E.  
Finite inextensional pure bending and twisting of thin shells of revolution 1648  
On axial extension and torsion of helicoidal shells 4077  
A note on Gunther's analysis of couple stress 5861  
On generalized two-dimensional plate theory: Part 1 8462
- Rejent, B.  
The resonance frequencies of the aircraft jet-engine bracket-shafts 2413
- Rekasius, Z. V.  
Optimal linear regulators with incomplete state feedback 1517
- Rekoff, M. G.  
State variables in sampled-data systems: Part 1 812  
State variables in sampled-data systems: Part 2 813  
State variables in sampled-data systems: Part 3 814  
State variables in sampled-data systems: Part 4 815  
State variables in sampled-data systems: Part 5 816
- Reller, J. O., Jr.  
See Hiers, R. S., Jr. 4471
- Remmers, G. M.  
Experimental technique for determining fixed-base, natural frequencies of structures on single nonrigid attachment points 7773
- Rempel, G. G.  
Problem of determining the general form of the relation between detonation velocity and charge radius 2900
- Remson, I.  
Numerical analysis of soil-moisture systems 6550
- Ren, N.  
Flexural and extensional vibrations of two-layered plates 9423
- Renard, M.  
See Carbonell, E. 7217
- Renard, M. L.  
See Gollnitz, H. 6494
- Renner, U.  
Analysis of a gyro suspended on gimbals 3072  
See also Lochmann, M. 5843
- Renton, J. D.  
Behavior of Howe, Pratt, and Warren trusses 7888
- Renzo, P. C.  
Gear couplings 1772
- Repin, Iu. M.  
See Krasovskii, N. N. 3943  
Milshtein, G. N. 7482
- Repukhov, V. M.  
Effectiveness of turbulent film cooling of a plane surface behind tangential slots 8060  
See also Bogachuk Kozachuk, K. A. 7996
- Resch, H.  
On the non-steady movement of air and butane vapor through wood 8222
- Reshotko, E.  
Analysis of the "laminar instability" problem in gas-cooled nuclear reactor passages 3511  
Fluid dynamic considerations in the design of slinger seals 5724
- Restrepo, R. A.  
See Cooper, J. N. 3013
- Reuta, S.  
On the design of structures of minimum weight 8687
- Reyhner, T. A.  
The interaction of a shock wave with a laminar boundary layer 2668
- Reyn, J. W.  
See Bannink, W. J. 5411
- Reynolds, A. J.  
See Tucker, H. J. 4421  
Narayanan, R. 9626
- Reynolds, W. C.  
Thermodynamics, 2nd edition 3628  
See also Lee, L. H. 7510
- Reznikov, B. I.  
Ablation of a metal body near the stagnation point 3718
- Rhines, W. J.  
An extension of generalized plane stress for problems with out-of-plane restraint 5849
- Rhodes, M. D.  
Calorimetric, optical, and vibration investigations of stretch-formed aluminum solar concentrators 2154  
Calorimetric evaluation of three 1.5-meter-diameter inflatable rigidized solar concentrators 9132
- Ribner, H. S.  
Jets and noise 8172
- Ribovich, J.  
Instrumented card-gap test 5630  
See also Watson, R. W. 2091
- Rice, J. R.  
Plane strain deformation near a crack tip in a power-law hardening material 116  
A path independent integral and the approximate analysis of strain

- Rice, J. R. (*Continued*)  
concentration by notches and cracks 4225  
The elastic-plastic mechanics of crack extension 6102
- Rice, R. K.  
See Lasdon, L. S. 1512
- Rice, W.  
See Farnsworth, A. V., Jr. 400
- Richard, R. M.  
Finite element analysis of inelastic structures 8676
- Richards, J. M.  
Inclined buoyant puffs 3555
- Richards, R., Jr.  
Body-force stresses in gravity structures 6067
- Richardson, B. L.  
See Merriam, R. L. 3684
- Richardson, C. S.  
Effect of speed brakes on the supersonic aerodynamic characteristics of a variable-sweep tactical fighter model at Mach numbers from 1.60 to 2.50 1142
- Richardson, E. V.  
See McQuivey, R. S. 7150
- Richardson, H. P.  
Calibration of differential pressure indicators at high system pressures 3613
- Richardson, J. T.  
Measured deformation behavior of Glen Canyon Dam 2511
- Richardson, P. D.  
Transient heat transfer in human skin 7221  
See also Hanson, F. B. 5305  
Cygan, D. A. 7240
- Richardson, R. C. D.  
The maximum hardness of strained surfaces and the abrasive wear of metals and alloys 730  
The wear of metals by relatively soft abrasives 5713
- Richardson, R. H.  
See Smith, D. 3813
- Richmond, O.  
See Wray, P. J. 9952
- Richter, H.  
See Knoche, K. F. 1944
- Richter, J.  
See Meyer, E. 4677
- Richter, W.  
The mean heat transfer coefficient in the turbulent boundary layer of a flat plate in a parallel stream 1214
- Ricka, J.  
Nonsteady horizontal motion of a rocket towing or releasing a flexible thread 9274
- Rickard, J. A.  
See Stewartson, K. 9767
- Ricketts, T. E.  
See Goldsmith, W. 3380
- Riera, J. D.  
The optical-rotation effect in photoelastic shell analysis 7841
- On the stress analysis of structures subjected to aircraft impact forces 8703
- Rifai, M. F.  
See Smith, K. V. H. 2684
- Rigaut, F.  
Analog determination of symmetrical wing profiles adapted to flight condition near the critical regime 2696  
Determination of transonic vane grids by a combined analog-numerical method 7092  
Determination of transonic jets by electric analog 7970
- Rigby, L. J.  
A simple ionization gage for measuring pressures of reactive gases 507
- Rigg, C.  
See Hulse, C. 5509
- Rihn, W. J.  
The design of electromagnetic damping circuits 8240
- Rikhter, L. A.  
Engineering and economic calculation of gas velocities in external flue gas ducts in thermal power stations 5511
- Riley, N.  
See Andrews, R. D. 8056
- Riley, V. R.  
Tensile strength and failure mechanics of fiber composites 3331
- Riley, W. E.  
Reversed curvature of tendons in prestressed continuous members 7882
- Rimas Vainys, J.  
Vapor deposited samples and leads for high pressure measurements 2518  
Propagation of acoustic waves through a system undergoing phase transformations 7420
- Rimberg, D.  
See Thomas, J. W. 7412
- Rimmer, P. L.  
Heat transfer from a sphere in a stream of small Reynolds number 535
- Rimrott, F. P. J.  
Nonlinear bending behavior of slit, thin-walled tubes with an arbitrary slit location 4092  
See also Jones, L. E. 5516
- Rinaldi, G. M.  
On a particular case of small transverse vibrations of two coupled strings 6812
- Ringwall, C. G.  
A fluidic technique for measuring the average temperature in a gas turbine exhaust duct 2761
- Rink, R. E.  
Completely controllable bilinear systems 6656
- Riordon, J. S.  
Dual control strategies for discrete state Markov processes: Part 1 8355
- Ripianu, A.  
A contribution to the theory of two functions which occur in the study of the transient motions of mechanical systems 6797
- Rish, R. F.  
Unsymmetric edge loads on thin cylinders 6767
- Risito, C.  
On the Lyapunov stability of a system with known first integrals 6606
- Rissanen, J.  
On performance bounds for control systems 3040
- Rist, D.  
See Munzberg, H. G. 9039
- Rivello, R. M.  
Theory and analysis of flight structures 7908
- Rivkin, S. A.  
Comparable tests of reinforced-concrete foundations on a hydraulic chock and on sand and clay supporting soils 4197
- Rivlin, R. S.  
See Green, W. A. 9320
- Rivlin, T. J.  
Lanczos'  $\tau$ -method and polynomial approximation in the plane 9186
- Rizzo, F. J.  
A formulation and solution procedure for the general nonhomogeneous elastic inclusion problem 4024
- Roach, G. F.  
On the approximate solution of elliptic, self-adjoint boundary value problems 4835
- Robbins, H.  
Probability distribution related to the law of the iterated logarithm 9200
- Robbins, H. M.  
A generalized Legendre-Clebsch condition for the singular cases of optimal control 1529
- Robe, T. R.  
Stability of two tethered unsymmetrical Earth-pointing bodies 4005
- Roberts, A. P.  
Error covariance for a lagging filter of colored noise 9242
- Roberts, A. S., Jr.  
See Braun, J. 9887
- Roberts, A. W.  
The dynamics of granular material flow through curved chutes 5657
- Roberts, B. W.  
See Skreiner, M. 6194
- Roberts, H. E.  
Use of computers for road design 7517
- Roberts, J. B.  
An approach to the first-passage problem in random vibration 6867
- Roberts, J. L.  
See Hales, A. L. 9117
- Roberts, P. H.  
On the thermal instability of a rotating-fluid sphere containing heat sources 3674
- Roberts, S. M.  
Justification for the continuation method in two-point boundary value problems 7
- Roberts, V. L.  
See Terry, C. T. 9999

- Roberts, W. H.  
Empirical correlation of flight vehicle vibration response 201
- Roberts, W. H., Jr.  
See Wenig, H. G. 2603
- Roberts, W. L.  
Thermal considerations in tandem cold rolling operations 9506
- Roberts, W. T.  
See Rogers, D. H. 1607
- Robertson, G. G.  
See Olander, H. C. 6997
- Robertson, J. A.  
Economical, single scale, ionization gauge pressure readout system 4250
- Robertson, W. G.  
See Hamilton, G. M. 8289
- Robin, G. C.  
Dynamic stress analysis of below-knee drop foot braces 7462
- Robinson, A. C.  
See Anderson, G. M. 2894
- Robinson, A. R.  
See Spiegel, S. L. 4758  
Wright, R. N. 4989  
Nüller, P. P. 6560  
West, H. H. 7895
- Robinson, D. W.  
See Whittle, L. S. 2989  
Johnson, D. R. 4670  
Balachandran, C. G. 4682
- Robinson, G. C.  
Raw material parameters determining extrudability 6913
- Robinson, G. E.  
See Schmidt, F. W. 4541
- Robinson, H.  
Composite beam incorporating cellular steel decking 9569
- Robinson, J.  
A general note on the selection of redundancies in structural analysis 1753
- Robinson, J. R.  
A case of general failure of the band of the reinforcement in a uniformly loaded square slab of reinforced concrete 4266
- Robinson, L. B.  
See Wazzan, A. R. 7249
- Robinson, P. D.  
Some variational principles for integral equations 4838
- Robinson, R. C.  
Dynamic response of a family of axisymmetric hammerhead models to unsteady aerodynamic loading 1146
- Robinson, T. C.  
See Bluestein, M. 7278
- Robson, J. V. B.  
Ignition systems and spark plug requirements: Part 2, Meeting the spark plug requirements of European engines 2820
- Rockett, J. A.  
See Torrance, K. E. 7234  
Torrance, K. E. 8908
- Rodden, W. P.  
See Albano, E. 8821
- Rodemich, E. R.  
See Franklin, J. N. 9193
- Roderick, J. W.  
The behavior of composite steel and lightweight concrete beams 2352  
Load carrying capacity of simple composite columns 8501
- Rodi, W.  
See Eckert, E. R. G. 7073
- Rodivilin, M. D.  
See Shklover, G. G. 1846
- Rodloff, G.  
Safety of windshield against flying stones 3272
- Rodriguez, P.  
A method for determining the thermal and athermal components of flow stress from stress-relaxation 3136
- Roe, P. L.  
A momentum analysis of lifting surfaces in inviscid supersonic flow 7100  
Guided weapons aerodynamic study: Force and moment measurements on some monoplane and cruciform slender wing-body combinations at  $M = 4.0$  7160
- Roebuck, J. A., Jr.  
A system of notation and measurement for space suit mobility evaluation 749
- Roesner, K.  
On the calculation of three-dimensional unsteady flow fields in compressible media 4388
- Rogallo, F.  
Flexible wings 3566
- Rogero, R. S.  
See Clayton, R. M. 4569
- Rogers, A. E.  
Maximum likelihood estimation of rational transfer function parameters 4874
- Rogers, C. B.  
See Mabie, H. H. 4127
- Rogers, D. F.  
Reverse flow solutions for compressible laminar boundary-layer equations 9722  
See also Roderick, J. W. 8501
- Rogers, D. H.  
Plastic anisotropy of titanium and zinc sheet: Part 2, Crystallographic approach 1607
- Rogers, E. H.  
Stability and convergence of approximation schemes 3005  
Variational properties of nonlinear spectra 7500
- Rogers, P.  
Steel columns eccentrically loaded 3196
- Rogge, T. R.  
Stable elastic waves in anisotropic materials 5124
- Register, A.  
On the kinetic theory of stable and weakly unstable plasma: Part I 3776
- Rogula, D.  
Kinematic resonances in periodic structures 4139
- Rohatgi, V. K.  
Ion drag and current partitioning at the cathode of a plasma accelerator 9015
- Rohde, W.  
See El-Badrawy, R. 7399
- Rohsenow, W. M.  
See Kroger, D. G. 549
- Roisin, V.  
See Verdeyen, J. 2449
- Roitenberg, I. N.  
On the construction of Lyapunov's functions for systems of linear finite difference equations with variable coefficients 6621
- Roitenberg, L. Ya.  
On the influence of random variations of the angular velocity of the rotors of gyroscopes on the motion of gyrocompass 46  
Gyroscopic tracking systems with discrete inputs in the presence of multidimensional random noise 5829
- Roknich, G.  
Nondestructive concrete testing 2520
- Rokotyan, V. Ye.  
Some group-invariant solutions to the equations of the dynamics of the atmosphere 2974
- Rolfe, S. T.  
Effect of state-of-stress and yield criterion on the Bauschinger effect 4976
- Roll, R.  
Materials for structural models 3356
- Rollins, F. R., Jr.  
Ultrasonic examination of liquid-solid boundaries using a right-angle reflector technique 6526
- Rollins, H. M.  
See Miller, C. E. 6078
- Rolls, L. S.  
Flight-determined aerodynamic properties of a jet-augmented, auxiliary-flap, direct-lift-control system including correlation with wind-tunnel results 9761
- Rom, A.  
See Deprit, A. 5777
- Rom, J.  
Study of similarity of high-temperature, turbulent jets 1851  
The velocity, pressure and temperature distribution in the turbulent supersonic near wake behind a two-dimensional wedge-flat plate model 6267  
See also Seginer, A. 9826
- Roma, C.  
Compression of gases with high pre-cooling 1193  
A new type of hydraulic ejector with variable geometry: Experimental research 7052
- Romalis, B. L.  
Solution of a contact problem for cylinders compressed and rotating relative to one another 8413
- Romanovskii, S. G.  
Heat and mass transfer in capillary porous materials drying in an electromagnetic field 3717



- Romualdi, J. P.  
See Cohen, L. J. 103
- Ronay, M.  
Second-order elongation of metal tubes in cyclic torsion 2341  
See also Mason, W. P. 2342
- Ronigk, B.  
See Herzog, U. 9512
- Ronken, D. A.  
Intensity discrimination of Rayleigh noise 8176
- Ronzin, V. D.  
Calculations of variable regimes of a turbine with separation of the loss 9791
- Rooney, J.  
See Bessacini, A. F. 2243
- Rooney, J. A.  
See Nyborg, W. L. 9052
- Roorda, J.  
Some thoughts on the Southwell plot 158  
On the buckling of symmetric structural systems with first and second order imperfections 7731  
See also Nemat-Nasser, S. 3193
- Rootenberg, J.  
See Alexandrovitz, A. 7550
- Roots, W. K.  
Note on boiler stability 1505
- Rosa, R. J.  
Magnetohydrodynamic energy conversion 2871
- Rosciszewski, J.  
Acceleration process in the Hall current device 2050
- Rose, D. A.  
Water movement in porous materials: Part 3, Evaporation of water from soil 8229
- Rose, J. W.  
Condensation of a vapor in the presence of a noncondensing gas 8937  
See also Citakoglu, E. 2793
- Rose, R.  
Stability and control flight testing: Some of the test instrumentation requirements 7202
- Rose, W. C.  
Interaction of an oblique shock wave with a turbulent boundary layer 3549
- Roseau, M.  
Contribution to the diffraction problem of Sommerfeld 473
- Rosel, R.  
Couette and Poiseuille flow of a fluid with two viscosity relations 389
- Rosen, A.  
Explicit upper bounds for error propagation in the  $n$ -body field 1329
- Rosen, B. W.  
Structural design concepts for the efficient utilization of fibrous composite materials 1756
- Rosen, G.  
A necessary condition for the existence of singularity-free global solutions to nonlinear ordinary differential equations 7484  
Fundamental classical and quantum dynamical theory 9275
- Rosen, J. B.  
Optimal control and convex programming 845
- Rosen, J. M.  
See Kendall, P. A. 2006
- Rosen, R.  
See Rubinstein, M. F. 8679
- Rosenbaum, H.  
Some numerical solutions of the rotational Euler equations 1806
- Rosenbaum, I. J.  
See Stallard, J. M. 7213
- Rosenberg, R. C.  
See Karnopp, D. 2192
- Rosenberg, R. M.  
See Yang, T.-L. 5987  
Pak, C. H. 6802
- Rosenberg, J. W.  
See Kremith, R. D. 4790
- Rosenblat, S.  
Centrifugal instability of time-dependent flows: Part 1, Inviscid, periodic flows 4348
- Rosenfield, A. R.  
Dislocation dynamics 6745  
See also Hahn, G. T. 3329  
Hahn, G. T. 3335
- Rosenfield, M. J.  
See Kao, G. C. 6993
- Rosengren, G. F.  
See Rice, J. R. 116
- Rosengren, K. J.  
The mechanical properties of an interlocked low-porosity aggregate 6075  
See also Hoskins, E. R. 1420
- Rosenkranz, B.  
See Tochacek, M. 6176
- Rosensweig, R. E.  
See Cowley, M. D. 3765
- Rosenthal, J. E.  
Properties of solutions of Laplace's equation generated by integrals in the complex domain: Part 1, Axially symmetric potentials 1458
- Rosenthal, L. A.  
Joulemeter for exploding bridgewire firing sets 2905
- Rosenthal, R. L.  
See Reshotko, E. 5724
- Rosin, G. S.  
Form factor of the specimen in measurements of the dynamic modulus of elasticity 7856
- Rosman, R.  
Framework for stiffened systems in tall buildings 6177  
Torsion of perforated concrete shafts 9586
- Rosner, D. E.  
Enhancement of diffusion-limited vaporization rates by condensation within the thermal boundary layer: Part 1, The critical supersaturation approximation 562  
Convective diffusion limitations on the rates of chemical reactions at solid surfaces: Kinetic implications 4566
- Ross, B.  
The perforation of a porous medium due to projectile impact 7796
- Ross, B. B.  
See Leigh, D. C. 6271
- Ross, C. T. F.  
Elastic instability of a circular cylinder of varying shell thickness 5053  
The buckling of grillages 8511
- Ross, D. H.  
Aerodynamic noise investigation in a short-duration shock tunnel 664
- Ross, D. K.  
The stability of a rotating liquid mass held together by surface tension 7409
- Ross, E. W., Jr.  
Transition solutions for axisymmetric shell vibrations 9430
- Ross, G.  
Calculation of nonuniform radiant flux to tube banks 2787
- Ross, R. J.  
See Kao, J.-S. 2353
- Ross, T. K.  
An electrochemical investigation of the hydrodynamics of liquid films on grid packings 6430
- Rossi, L. C.  
Synthetic interpretation of attitude dynamics of a spinning satellite under continuous and pulsed torques 2077
- Rossner, P.  
Thermodynamic calculation of the grate cooler 9813
- Rossow, E. C.  
See Hongladaromp, T. 323
- Rosta, L.  
See Heller, G. 3605
- Rostafinski, W.  
An analytical method for predicting the performance of centrifugal pumps during pressurized startup 3600
- Roston, S.  
The blood flow of the brain 7471
- Rosuel, A.  
Twisted tapes for increased power density 1212
- Roszkowski, M.  
See Parszewski, Z. 5728
- Rotenberg, S. N.  
Development and long-term testing of a pilot plant high temperature airheater 7279
- Roth, B.  
The design of binary cranks with revolute, cylindric, and prismatic joints 3090
- Roth, J. R.  
Experimental observation of oscillations described by the continuity equations of slightly ionized deuterium, neon, and helium gas 4493

- Rothenberger, B. F.  
The control of nonlinear systems:  
Part 4, Quasilinearization as a nu-  
merical method 2226  
The control of nonlinear systems:  
Part 5, Quasilinearization and state-  
constrained systems 2227
- Rothhardt, L.  
Device for the direct measurement  
of the pressure difference in the  
region of high and superhigh  
vacuum 505  
Electric conductivity of plasma  
ahead of and behind shock waves 625
- Rothman, M. A.  
See Chung, K. 1273
- Rothwell, A.  
Coupled modes in the buckling of  
panels with Z-section stringers in  
compression 1654  
The buckling of shallow corrugated  
webs in shear 8510
- Rothwell, P.  
The plasmopause, the plasma sheet,  
and energetic trapped electrons in  
in the Earth's magnetosphere 8252
- Rotsey, W. B.  
See Turner, D. N. 4218
- Rott, N.  
Boundary layers due to the com-  
bined effects of rotation and  
translation 5294  
Transformations of the boundary-  
layer equations for rotating flows 9707
- Rotta, N. R.  
Effects of nose bluntness on the  
boundary layer characteristics of  
conical bodies at hypersonic speeds 8808
- Rouche, N.  
On the stability of motion 6872
- Roudier, R.  
A hot air scale model of a steam  
generator installation 568
- Rougee, P.  
Existence and uniqueness of weak  
solutions in the linear equilibrium  
theory of elastic nonhomogeneous  
thin shells 8490  
Existence of weak solutions in the  
nonlinear theory of thin elastic  
nonhomogeneous shells 8491
- Rouhani, S. Z.  
Calculation of steam volume fraction  
in subcooled boiling 1237
- Rouleau, W. T.  
See Holmboe, E. L. 474
- Routbort, J. L.  
See Brookes, C. A. 686  
Brookes, C. A. 1003
- Rouvillois, X.  
See Rosuel, A. 1212
- Roux, J.  
Quantitative analysis of sound fields  
by the striaoscopic method 7386
- Rowden, G.  
Effects of nonconventional ma-  
chining processes on the mechanical  
properties of metals 5180
- Rowe, G. W.  
Vapor lubrication in friction and  
low-speed metal cutting 8288
- See also Hinsley, C. F. 1423  
Johnson, R. W. 9508
- Rowland, E. H.  
Graphic analysis of guyed masts 4984
- Rowlands, G. F.  
See Maslen, K. R. 758
- Roy, A. B.  
Disturbance in an infinite viscoelas-  
tic slab of the linear type due to  
transient torsional forces applied  
on the surface of a cylindrical  
cavity 968
- Roy, D.  
Thermal conductivity of simple gases  
at normal pressures 6373
- Roy, J. S.  
See Mishra, S. P. 6552
- Roy, M. B.  
See Desai, M. D. 6073
- Royak, D. A.  
Calculation of a very long cylindri-  
cal shell reinforced by a ring 5026
- Rozenberg, A. M.  
Cutting forces in broaching non-  
ferrous metals 3310
- Rozenberg, O. A.  
See Rozenberg, A. M. 3310
- Rozenbljum, W. I.  
On some plastic solutions of thick  
cylinders 883
- Rozenblyum, V. I.  
Analysis of shakedown of nonuni-  
formly heated elastoplastic bodies 2123
- Roznowski, T.  
Numerical analysis of nonsteady  
state temperature field in a long  
cylinder 8043
- Rozvany, G. I. N.  
Sudden collapse of unbonded under-  
prestressed structures 9575
- Rubanik, V. P.  
Interaction of self-oscillatory sys-  
tems with delaying connections  
between them 171  
See also Marchenko, Yu. I. 167
- Rubanova, G. M.  
Metal heating by laser radiation 3691
- Rubanovich, I. M.  
Determination of the optimal di-  
mensions of high-temperature cyl-  
indrical-cavity solar energy re-  
ceivers 556
- Rubanovskii, V. N.  
On the stability of motion of a body  
in a fluid 3593  
The application of the small param-  
eter method to the equations of  
motion of a body in fluid 7580
- Rubenfeld, L. A.  
See Keller, J. B. 377
- Ruberti, A.  
On the relative stability of time-  
invariant linear systems 2231
- Rubin, A. I.  
Regression analysis and parameter  
identification 3937
- Rubin, D.  
Mechanical and thermodynamic  
considerations of an assemblage of  
homogeneous elastic-plastic states 5643
- Rubin, S. G.  
See Rudman, S. 7977
- Rubinov, A. M.  
See Demyanov, V. F. 800
- Rubinshtein, G. Sh.  
See Akilov, G. P. 1511
- Rubinstein, M. F.  
Structural analysis by matrix  
methods for forces not at the co-  
ordinates 6157  
Analysis by group iteration using  
substructures 7867  
Structural analysis by matrix de-  
composition 8679  
See also Futterman, S. R. 4279
- Rubinstein, N.  
Upper and lower bounds to bending  
frequencies of nonuniform shafts,  
and applications to missiles 6014
- Rubitchev, N. A.  
On the application of random  
samples to determine average-time  
value of signal 1533
- Rublevskii, N. T.  
See Stepanov, A. E. 9365
- Rublevskii, N. Y.  
See Stepanov, A. E. 9350
- Rubtsov, N. A.  
On radiative heat transfer in a plane  
layer of an absorbing medium 2789
- Ruch, R. B.  
See Ward, J. J. 2026
- Rucker, C. E.  
Vibration responses of simple curved  
panels to high-intensity random  
and discrete frequency noise 5109
- Rudakov, V. N.  
Means of investigating the dynamics  
of the stressed state of rigid bodies 296
- Rudakov, R. N.  
On small perturbations of convective  
motion between vertical parallel  
planes 1093  
See also Gershuni, G. Z. 4352  
Gershuni, G. Z. 4525
- Rudd, M. J.  
A laser Doppler velocimeter employ-  
ing the laser as a mixer-oscillator 4456
- Rudloff, E.  
Differentiation of empirically de-  
termined functions 7497
- Rudman, S.  
Hypersonic viscous flow over slender  
bodies with sharp leading edges 7977
- Rudnick, P.  
Motion of a large spar buoy in sea  
waves 1411  
See also Anderson, V. C. 8189
- Rudnyi, N. M.  
See Venediktova, R. I. 3711
- Rudolph, H.  
The synthesis of linear single-loop  
control systems with regard to the  
practical design 8340

- Rues, D.  
A simple theory of shock structure based on kinetic theory of gases 1841
- Ruggeri, R. S.  
Method for prediction of pump cavitation performance for various liquids, liquid temperatures, and rotative speeds 7179  
*See also* Moore, R. D. 1803
- Ruhlin, C. L.  
*See* Sandford, M. C. 2884
- Rukhovets, A. N.  
Mixed problems on torsion of an elastic half-space with a spherical inclusion 4944
- Rulf, B.  
Uniform asymptotic theory of diffraction at an interface 4161
- Rumbarger, J. H.  
Hydrostatic lead screws 7009
- Rumi, N.  
Determination of the thermodynamic state of water vapor in steady adiabatic flow along a vertical pipe (wells) 2754
- Rumman, W. S.  
Earthquake forces in reinforced concrete chimneys 2546
- Rummeler, D. R.  
Mechanical properties and column behavior of thin-wall beryllium tubing 916
- Rumpf, H.  
The properties of useful dusts 9962
- Rumyantsev, V. V.  
Stability of time-stationary motions of a satellite with a rotor and a cavity containing a liquid 5614  
Steady-motion stability of free systems 9276
- Rundell, H. A.  
Forced convection in concentric-sphere heat exchangers 2773
- Runge, R.  
The properties of neon between the triple point temperature (24, 54°K) and 100°K at pressures up to 240 atm 5465
- Runyon, J. C.  
*See* Worth, J. H. 10008
- Ruppe, H. O.  
Introduction to astronautics: Vol. 1; Vol. 2 2889
- Ruppeneit, K. V.  
*See* Dolgikh, M. A. 993  
*See* Dranovskii, A. N. 3179
- Rushchinskii, V. M.  
An approximate solution of dynamics equations of boiler sections with a two-phase medium 3969
- Rushchitskii, Ya. Ya.  
The solution of a contact problem in viscoelasticity 7631
- Rushton, K. R.  
A general method of studying steady lift interference in slotted and perforated tunnels 7199
- Large deflection of variable-thickness plates 7720  
Postbuckling of tapered plates 8512  
A digital computer solution of the Laplace equation using the dynamic relaxation method 9219
- Rusinko, K. N.  
*See* Leonov, M. Ya. 9331
- Rusinov, R. V.  
Determination of the length of a fuel-jet in the case of variable processes of injection 583
- Ruska, W.  
*See* Kao, J. T. F. 4467
- Ruskin, A. M.  
Materials considerations in design 1790
- Rusov, L.  
*See* Cucuz, N. 9436
- Russell, A. E.  
Third Nilakantan Memorial Lecture: Aerodynamic influences in supersonic aircraft 1890
- Russell, J. E.  
Inelastic transverse-deflection response by complementary-energy versus plastic-hinge concept 121  
A modified cylindrical wave approximation 7175
- Russell, L. M.  
*See* Phillips, B. 7369
- Russell, R. R.  
Hyperbolic paraboloid structures on four supports 2362
- Russell-Jones, A.  
*See* Jacobs, P. W. M. 8966
- Russman, I. B.  
Radiation transfer with reflection from the boundaries of the atmosphere 2153
- Russo, D. A.  
Calculation of output noise variances for discrete time-invariant filters 3953
- Rusu, E.  
*See* Irimiciuc, N. 7570
- Rutherford, J. L.  
*See* Bossler, F. C. 6143
- Rutherford, P. H.  
Stabilization of drift waves by shear 2045
- Rutkevich, B. N.  
*See* Fedorchenko, V. D. 2849  
*See* Sineelnikov, K. D. 2862
- Rutkevich, I. M.  
The electromagnetic field in a cavity undergoing compression 7329
- Rutkovskaya, L. D.  
*See* Piontkovskii, A. A. 3045
- Ruvn, Yu. R.  
The effect of high pressure on heat transfer with free convection of a liquid in a confined space 4524
- Ruzicka, M.  
Basic potential flow in the spiral case of centrifugal compressors 5444
- Rvachev, V. L.  
*See* Volkov, A. P. 4946  
*See* Goncharyuk, I. V. 6718
- Ryabchinskii, N. I.  
Improving the wear-resistance of slender thin-walled components 1424
- Ryabinkin, L. A.  
*See* Rapoport, M. B. 1390
- Ryabov, A. F.  
Thermoelastic problem of multilayer plates 3817
- Ryabov, L. P.  
*See* Ozernoi, V. M. 1471
- Ryan, J. A.  
Analysis of light-scattering data from polymer solutions 7930
- Ryan, N. W.  
*See* Baer, A. D. 2817  
*See* Oberg, C. L. 2826
- Ryan, R. S.  
The influential aspects of atmospheric disturbances on space vehicle design using statistical approaches for analysis 3573
- Ryazanov, E. V.  
Some particular solutions of the equations describing axisymmetric motion of a gravitating rarefied plasma 609  
Pulsations of a rotating cylinder of plasma at zero temperature gradient 614
- Rybakov, A. P.  
Empirical formula for the relationship between the velocity of sound, density, and pressure in a shock wave 2920
- Rybarski, A.  
*See* Mikus, J. 3223
- Ryder, J. F.  
*See* Majumdar, A. J. 6122
- Ryzewski, J. R.  
The effect of foundation conditions in model studies of arch dams 7812
- Ryge, G.  
*See* Webber, R. L. 4802
- Ryhming, I. L.  
On viscous wedge-flow 9640
- Rykov, V. I.  
*See* Antonenko, T. I. 4689
- Rylander, H. G.  
Stress concentration factors in shouldered shafts subjected to combinations of flexure and torsion 868  
Control of whirl and resonant whip in a full journal bearing by the use of a liquid-solid biphasic lubricant 4799
- Ryley, D. J.  
The collision behavior of steam-born water drops 696  
Condensation fogs in low pressure steam turbines 4544  
Two-phase critical flow through suction slots in low pressure steam turbine blades 6247
- Rymarz, C.  
Surface waves in a Cosserat medium On the model of a nonsimple medium with rotation degrees of freedom 6724
- Rysz, J.  
*See* Kielbasa, J. 6309  
*See* Kielbasa, J. 8872

- Ryterski, J.  
Series expansions of transverse vibration of beam problem in terms of eigenfunctions 8535
- Ryzhenko, A. P.  
Testing coarse detrital soils on a large hydraulic rig operating under triaxial compression 3288
- Ryzhov, O. S.  
On perturbations associated with the creation of lift acting on a body in a transonic stream of a dissipative gas 7158  
*See also* Diesperov, V. N. 1831  
Diesperov, V. N. 5319
- Ryzynski, A.  
Evaluation of allowable load for reinforced concrete structures based on the plastic hinge theory 5222
- Rzhanitsyn, A. R.  
Stability of built-up rods under the action of lengthwise varying axial force 8505
- Rzhanitsyn, B. A.  
Physicochemical methods of indurating soils 4185
- Rzheznikov, Yu. V.  
A new design of steam turbine governor valve 4886
- S**
- Saakyan, V. G.  
*See* Babloyan, A. A. 8396
- Saari, D. G.  
*See* Pollard, H. 7572
- Saarias, M.  
Calculation of the wall-temperature distribution in transpiration cooling 2813
- Sabarly, F.  
The grouting and drainage of dam foundations in rock of low permeability 1714
- Sabatini, B.  
An algebra of strip shape and its application to mill scheduling 7820  
Shape regulation in flat rolling 7821
- Sabersky, R. H.  
*See* Reiman, T. C. 3503
- Sabherwal, S.  
*See* Kays, W. M. 1244
- Sabinin, K. D.  
Connection of short-period internal waves with the vertical density gradient in the sea 9981
- Sabirova, R. S.  
Natural oscillations of an anisotropic cylindrical shell 8545
- Sabzevari, A.  
Aerodynamic instability of suspension bridges 5606
- Sacchi, G.  
On the evaluation of the limit load for rigid-perfectly plastic continua 8428
- Sacerdote, G. G.  
Autocorrelation of periodic functions 1467
- Sachdev, K.  
Studies on engine piston ring wear by radio-tracer technique 6585
- Sachdeva, T. D.  
*See* Sastry, Y. V. S. R. 1825
- Sachenkov, A. V.  
Free oscillations of sandwich shallow spherical shells 7771  
*See also* Konoplev, Yu. G. 7704  
Artyukhin, Yu. P. 9371
- Sachkov, V. I.  
*See* Ermakov, V. I. 3257
- Sachs, H. K.  
Characteristics of a nonlinear supercritically damped mass elastic system 6809
- Sachs, K.  
Susceptibility to delayed failure 2476
- Sackman, J. L.  
On the propagation of transient pulses in linearly viscoelastic media 4175  
*See also* Nickell, R. E. 9948
- Sackmann, L.  
Contribution to fluidization: Resistance coefficient for the forward movement of a sphere in suspension in a fluid vein 8217
- Sacks, A. H.  
*See* Tickner, E. G. 753
- Sadikova, S. M.  
Two-dimensional analogs of an inequality of Esseen with applications to the central limit theorem 9198
- Sadler, S. G.  
*See* Lessen, M. 1802
- Sadovskii, L. E.  
*See* Karpelevich, F. I. 4
- Sadowski, A.  
*See* Dabrowski, K. 6173
- Sadowsky, M. A.  
*See* Hussain, M. A. 5848  
Hussain, M. A. 6705
- Saeki, H.  
The magnetohydrodynamic slider bearing 743
- Saffman, P. G.  
Conservation of circulation theorem for superfluids 5284
- Safford, F. B.  
Use of exploding wire apparatus for laboratory simulation of shock waves 657
- Sagawa, N.  
An experimental determination of transient condensing heat transfer with heat absorption in circular cylinders 7274
- Sage, A. P.  
Gradient and quasi-linearization computational techniques for distributed parameter systems 5785  
*See also* Griffin, R. E. 7555
- Sage, B. H.  
*See* Galloway, T. R. 1998
- Sager, I.  
Approximate solution of the problem of torsion of a cylinder by the Ritz-Galerkin method 6720
- A linear differential operator used in the design of thin spherical shells 8471
- Sagerman, G. D.  
*See* Clark, M. R. 1265
- Sagi, C. J.  
The design and performance of two-dimensional, curved diffusers: Part 1, Exposition of method 7074
- Sagomonyan, A. Ya.  
On the interaction of a jet and an unbounded stream with high velocities at infinity 1847  
Impact of a supersonic jet against a surface 1848  
Dissipation of explosion energy in soils 3285
- Sahakian, V. G.  
*See* Babloyan, A. H. 9285
- Sahlin, S.  
Applicability of limit design to cylindrical shells 5223  
Transversally loaded walls without tensile strength restrained by floor slabs 7904
- Sahoo, B.  
Load bearing capacity of footings founded on soft clay soils 5156
- Saidov, T. Kg.  
*See* Babichev, A. I. 228
- Saini, S. S.  
*See* Chandrasekaran, A. R. 4292  
Chandrasekaran, A. R. 9593
- St. Denis, M.  
The effect of ship stiffness upon the structural response of a cargo ship to an impulsive load 975
- Saitbekova, L. A.  
*See* Zhigalko, Yu. P. 9363
- Saito, A.  
Photoelastic study of rivet joint: Part 2 7844  
*See also* Yamamoto, T. 212  
Yamamoto, T. 9458
- Saito, H.  
*See* Ishihara, T. 7014
- Saito, K.  
On metal wire type ultrasonic dispersive delay line 4686  
*See also* Sugimoto, M. 898  
Kobayashi, K. 1446
- Saito, M.  
*See* Tokuoka, T. 8575
- Saito, S.  
Measurements of growth and damping rate of resistive instability in gaseous plasma 7316
- Sakagami, M.  
*See* Doi, H. 6050
- Sakaguchi, K.  
Biaxial tensile tester for flat plates 304
- Sakaki, K.  
*See* Okubo, H. 4937
- Sakamoto, M.  
*See* Fukui, S. 2798
- Sakata, T.  
*See* Taira, S. 300



- Sakharov, B. I.  
Calculation for strength of the plane bottoms of hermetically sealed cabins and holds of aircraft 7909
- Sakharov, V. N.  
See Norkin, S. P. 4243
- Sakhnovskii, E. G.  
The influence of viscosity anisotropy on the plane-parallel flow of an ionized medium in a coplanar magnetic field 3783
- Sakiadis, B. C.  
Viscoelastic flow properties of polymeric materials: Piston extrusion rheometry; Part 1, Symposium on handling of viscous fluids; Part 3, Measuring techniques 356
- Sakov, A. A.  
Certain properties and applications of an orthonormal triad 2279
- Sakrison, D. J.  
The use of stochastic approximation to solve the system identification problem 7560
- Saks, S. E.  
Turbulent motion of air mixtures in pipes 2681
- Sakui, S.  
See Nakamura, T. 6544
- Sakuma, T.  
See Karashima, S. 7401
- Sakurai, S.  
Experimental consideration on Griffith's crack in brittle material  
Rheological equation based on objectivity 5165  
5878
- Sakurai, T.  
See Yamada, Y. 2330
- Sala, I.  
On the numerical calculations of the flexural critical speeds of a rotating multispan shaft 6818
- Salama, A. E.  
Response of nonlinear beams and plates to ponding 7673  
See also Brown, J. E. 163
- Salamandra, G. D.  
Formation of a gas flow before a flame front 2008
- Salamon, M. D. G.  
Elastic moduli of a stratified rock mass 5167
- Salane, H. J.  
Finite-difference methods for plate vibration problems 8539
- Salant, R. F.  
Acoustic-wave propagation past a sinusoidal surface 7373  
Visualization of standing acoustic waves using time-averaged optical holographic interferometry 7388
- Salathe, E. P.  
Dissipative wave propagation in compressible magnetohydrodynamics 2038  
Dissipative magnetogasdynamic flow 4580
- Salceanu, C.  
Theoretical analysis of a new viscoelastic constant for solids drawn into wires 6920
- Salcudean, M.  
See Constantinescu, V. N. 3880  
Constantinescu, V. N. 9995
- Salencon, J.  
Theory of critical load: Solution of the problem of punching a plate with a rectangular rigid punch plane deformation 6917
- Salenkova, N. S.  
See Derkach, V. F. 9351
- Salerno, V. L.  
Stress solution for an infinite plate containing two arbitrary circular holes under equal biaxial stresses 5850
- Salimov, R. A.  
See Buchelnikova, N. S. 2111  
Buchelnikova, N. S. 9002
- Salin, J. -G.  
See von Schalien, R. 1963
- Salistra, G. I.  
A linear system in the field of thermal forces 3627
- Saljnikov, V.  
An equation of the theory of the boundary layer on rotating airfoils 5382
- Salmanov, Yu. D.  
The Sturm-Liouville problem for a general linear differential equation 6610
- Salmi, E. W.  
See Schreiber, R. E. 7308
- Salnikov, G. M.  
Dynamic stability of cylindrical and conical shells of circular and non-circular section with different boundary conditions 8525
- Salov, Yu. V.  
See Rikhter, L. A. 5511
- Saltanov, G. A.  
See Stepanchuk, V. F. 5337
- Saltanov, N. V.  
One-dimensional nonlinear non-steady problems of a multicomponent conducting fluid 9874
- Salvadori, L.  
On the stability of equilibrium in critical cases 3098
- Salwen, H.  
See Grosch, C. E. 4349
- Salzman, A. P.  
Natural frequencies of orthotropic circular plates of variable thickness 2407
- Samanta, S. K.  
The application of the upper bound theorem to the prediction of indenting and compressing loads for circular and rectangular disks 4970  
Theoretical analysis of the design of mechanical hammers for high-velocity hot forging 5170  
Resistance to dynamic compression of low-carbon steel and alloy steels at elevated temperatures and at high strain-rates 5654  
On relating the flow stress of aluminum and copper to strain, strain-rate and temperature 9333  
See also Sowerby, R. 2349  
Sowerby, R. 3306
- Samaras, D. G.  
Plasma turbulence 5573
- Sambasiva Rao, N. V.  
Fluctuating flow of a second order liquid through right-angled isosceles triangular channels 5314  
Slow stationary viscous flow past a surface of revolution of Booth's lemniscate 7947
- Sambasiva Rao, P.  
See Purushotham, G. 6462
- Samoilov, M. S.  
Calculation of a laminar twisted jet of compressible fluid 5311
- Samoilovich, G. S.  
Obtaining characteristics of aerodynamic cascades by electrohydrodynamic analogy 9788
- Samoilovich, Yu. A.  
Solution of heat-conduction problems with variable thermophysical properties by the method of nets 8052
- Samokhin, M. V.  
On transverse electric fields in the magnetosphere in the presence of quasi-Maxwellian charged-particle distributions 9882
- Sample, W. B., Jr.  
See Hicken, G. K. 2569
- Samsonov, V. A.  
On the problem of a minimum of a functional in the investigation of the stability of motion of a body containing fluid 9784
- Samuel, A. L.  
Some studies in machine learning using the game of checkers: Part 2, Recent progress 3087
- Samuels, M. R.  
Free convection in a rotating medium 8911
- Samuels, R. D.  
Experimental investigation of the turbulent boundary layer on a typical subsonic transport fuselage 7144
- Samuelson, L. A.  
Creep buckling of an elastic-plastic cylindrical shell 5065
- Samuylov, Ye. V.  
Collision integrals, effective cross sections, and angles of deviation for the Morse potential 521
- Sananes, F.  
Approximate analytical study of the asymptotic behavior of the entropy layer developing around a blunt-nosed cone 1121
- Sanchez Bribiesca, J. L.  
Introduction to the water-wave spectrum theory 5433
- Sancho, N. G. F.  
Moment equations of a stochastic system with two different random parameters 8324
- Sandblom, H.  
The pulse technique for investigating solids mixing in a fluidized bed 688
- Sandborn, V. A.  
On turbulent boundary layer separation 7138  
See also Baldwin, L. V. 3558  
Liu, C. Y. 5375

- Sander, G.**  
Dual analysis of a multiweb swept-back wing model 1047  
Digital computation of stresses and deflections in a box beam: A performance comparison between finite element models and idealization patterns 7873  
*See also* Fraeijns de Veubeke, B. 2357
- Sanders, F.**  
The release of latent heat of condensation in a simple precipitation forecast model 6574
- Sandford, M. C.**  
Wind-tunnel study of deflected-elevator flutter encountered on a T-tail airplane 2884
- Sandhu, R. S.**  
Parametric study of Tsai's strength criteria for filamentary composites 9568
- Sanditov, D. S.**  
*See* Bartenev, G. M.  
Razumovskaya, I. V. 8670
- Sandler, S. I.**  
Thermal conductivity of polyatomic gases 8035
- Sandomirskaya, N. D.**  
*See* Dyakonov, Yu. N. 403
- Sandouly, J. -C.**  
*See* Cheneau, H. 1414
- Sandov, T. Kh.**  
*See* Babichev, A. I. 227
- Sandri, G.**  
*See* Kritz, A. H. 1285
- Sandru, N.**  
*See* Teodorescu, P. P. 4022
- Sandulescu, S.**  
On the deformation of a jet surface lateral to a wing in an incompressible flow 7064
- Sanford, A. R.**  
High frequency microseisms from a known source 9118
- Sanford, R. J.**  
*See* Liebowitz, H. 9535
- Sanger, D. J.**  
A study of six-speed gear trains with eight gears 9595  
*See also* White, G. 1777  
White, G. 7015
- Sanger, N. L.**  
Noncavitating and cavitating performance of two low-area-ratio water jet pumps with throat lengths of 5.66 diameters 494
- Sankaranarayanan, P. E.**  
*See* Parameswaraiyah, R. 6360
- Sankaranarayanan, R.**  
Creep behavior of orthotropic circular plates 1596  
Steady creep of circular cylindrical shells under combined lateral and axial pressures 7636
- Sankey, G. O.**  
Spin tests to determine brittle fracture under plane strain 5183
- Sannuti, P.**  
*See* Kokotovic, P. V. 9257
- Sanokawa, K.**  
Heat transfer between metallic surfaces in contact: Part 1, The conditions of both metals in contact being the same; Part 2, The effects of the thickness of metal, and the conditions of both metals in contact being different; Part 3, The effect of oxidation of contacting surfaces; Part 4, The effects of the shape of surface roughness and the waviness, and the approximate method of calculating thermal contact resistance 4504
- Santathadaporn, S.**  
*See* Chen, W. F. 8499
- Santhanam, A. T.**  
Cleavage surface energy of calcite 4209
- Santini, F.**  
*See* Minardi, E. 9008
- Santini, P.**  
Contribution to the study of panel flutter 3800
- Saperstein, Z. P.**  
Fracture strength and microstructure of welds in 2014 aluminum 6210  
*See also* Howes, M. A. H. 9612
- Saporiti, G. A.**  
*See* Lo Conte, U. 9993
- Saprykin, G. S.**  
Operation of a high temperature cooled gas turbine under variable conditions 8107
- Sapunkov, Ia. G.**  
Convergent detonation waves under Chapman-Jouguet conditions in media with variable and constant initial densities 5621
- Saran, S.**  
Dimensionless parameters for static and dynamic earth pressures behind retaining walls 8597
- Sarbasov, K. E.**  
The stabilizing correction for the solution of a hyperbolic system of equations and its application to dynamic problems of the theory of elasticity 9181
- Sarin, S. L.**  
Modified transfer equation approach and its application to linearized plane Couette flow 1856
- Sarker, A. K.**  
On the settling of layers of viscoelastic materials under a gravitational force 7630
- Sarkar, S.**  
*See* Das, C. N. 5674
- Sarkar, S. K.**  
Note on the longitudinal vibration of a thin viscoelastic rod of variable cross section 1665  
Buckling of a heated circular plate 2126  
Thermal deflection of a nonhomogeneous rectangular plate 5635  
Quasi-static thermal deflection in a solid circular plate in the axisymmetric case 6539
- Sarkisian, Y.**  
*See* Levitskii, N. I. 5252
- Sarkisyan, A. S.**  
The dynamics of aperiodic ocean currents 3847
- Sarkisyan, V. S.**  
A method for determining the critical loads of anisotropic plates 5050
- Sarma, G. N.**  
A general theory of unsteady boundary-layer flows 452
- Sarma, G. S. R.**  
*See* Lu, P. C. 604
- Sarma, K. S.**  
Radial deformations in a compressible dielectric sphere 4932  
Transient thermal stresses in an infinite orthotropic cylinder of rectangular cross section 9950
- Sarma, K. V. N.**  
Scour under vertical circular jets 5280
- Sarma, S.**  
*See* Ambraseys, N. 9976
- Sarma, V. V. S.**  
Performance evaluation of optimal linear systems 56  
Sensitivity design of optimal linear systems 3981  
Optimal control when some of the state variables are not measurable 5820
- Sarvajna, D. K.**  
*See* Williams, I. P. 1187
- Sasada, T.**  
*See* Soda, N. 729
- Sasaki, T.**  
*See* Okino, N. 8276
- Sasiadek, M.**  
Some research in flow measurement of two-phase mixtures of gas and pulverized coal 2134
- Sasi Nagy, I.**  
Developing hobs for spline-shafts and methods of calculating their profiles 9600
- Sassi Perino, A. M.**  
*See* Cicala, P. 5944
- Sassoli, F.**  
On the attenuation of a flood wave in a quasi-rectangular channel 7174
- Sastry, P. G.**  
Hydraulic jump in nonlinear channels 4323
- Sastry, U. A.**  
Flexure of solid cylinders 5909
- Sastry, Y. V. S. R.**  
Isentropic flow of steam through a convergent-divergent nozzle 1825
- Satcunanathan, S.**  
Evaporation rates of liquid droplets evaporating in the "spheroidal" state on a hot surface 8943
- Sathi, H. L.**  
*See* Singh, M. P. 3510
- Sato, J.**  
*See* Soda, N. 7451
- Sato, K.**  
Nonlinear free vibration of beams with clamped ends and with one end clamped, other end simply supported 7757

- Sato, K. (Continued)**  
 Nonlinear free vibration of beams with central mass 9414  
*See also* Karashima, K. 573
- Sato, M.**  
 On limit of circulatory lift on wings with finite span 8014  
 Separation point of two-dimensional tangential jet along circular-cylindrical wall 9647  
*See also* Hamada, S. 5558
- Sato, N.**  
 Observation of amplitude oscillations of large-amplitude ion acoustic waves in a plasma 2046  
*See also* Inoue, H. 5087
- Sato, S.**  
*See* Neya, K. 2127
- Sato, T.**  
 Heat transfer bibliography: Japanese works 2807  
 The fundamental investigation on the mechanism of the liquid fuel spray diffusion flame: Part 1, General theory of oscillatory combustion 3728  
 The fundamental investigation on the mechanism of the liquid fuel spray diffusion flame: Part 2, The mechanism of the oscillatory combustion occurring in such a flame 3729  
*See also* Oden, J. T. 7672  
 Sato, K. 9414
- Sato, Y.**  
 Relation between ultimate pressure and wall thickness of cylindrical pressure vessels 882  
 Influence of the Coriolis force on impulsive breaking in rotating disk of brittle material like cast iron after it burst under centrifugal force 4217
- Satterfield, C. N.**  
 Gaseous diffusion and flow in commercial catalysts at pressure levels above atmospheric 4738
- Satterlee, H. M.**  
*See* Concus, P. 9781
- Sattinger, D. H.**  
 Stability of nonlinear hyperbolic equations 776
- Sauer, J. A.**  
*See* Pae, K. D. 4051
- Sauer, R.**  
 Accurate temperature matching in calorimetry 3652
- Sauerwein, H.**  
 Anisotropic waves in elastoplastic soils 3283
- Saunders, E. G.**  
*See* Johnson, D. R. 663
- Savage, J. C.**  
 A new method of analyzing the dispersion of oceanic Rayleigh waves 9113
- Savage, M. D.**  
 Stationary waves at a plasma-magnetic field interface 2044
- Savchenko, A. Ia.**  
 A generalization of the invariant relation of Hess 2288
- Savchenko, L. A.**  
 Automatic electrocardiogram recognition using learning machine algorithms 1551
- Save, M.**  
*See* Sacchi, G. 8428
- Save, M. A.**  
 Some aspects of minimum-weight design 4259
- Savelev, V.**  
*See* Nepomniashchaia, I. A. 9409
- Savin, G. N.**  
 Stress concentration near a hole 1578  
 Spread of cracks at fracture in glass-like polymers 1726  
 Stress around curvilinear holes in shells 4082  
 The distribution of stresses around openings 8406  
 Dynamics of shaft elevating cables 9439  
*See also* Belyankin, F. P. 7629
- Savova, L. N.**  
 A two-dimensional problem of the moment theory of viscoelasticity concerning the concentration of stress around a circular opening 5886
- Savruk, M. A.**  
 Some questions of the theory of elasticity for doubly connected regions 7608  
 Two problems of the theory of elasticity for doubly connected regions 9290
- Savulescu, St. N.**  
 Some considerations on velocity "spikes" in different transition flows 446  
 Some aspects of boundary layer transition at low Reynolds numbers 9724
- Sawada, T.**  
 Equations, tables and charts for shock drag parameter, Mach number: 1.1-15.0, shock angle: 90°-Mach angle 5341  
 The axial flow molecular pump: Part 1, On a rotor with a single blade row 7123
- Sawaragi, Y.**  
 Control system synthesis by sensitivity considerations 38  
 Surface strain distributions of rubber cylinders under shear or compressive shear 271  
 On the estimation of state variables and parameters for discrete-time noisy nonlinear dynamical systems 5802  
 Analysis of the high-speed servosystem with an SCR servo-amplifier 8362  
 On the method of successive approximations for dynamic optimization of a nonlinear control system subjected to a stationary Gaussian random disturbance 9259  
 Mean square stability of linear systems with random parametric excitation 9454
- Sawczuk, A.**  
 Limit analysis and yield-line theory 2329  
 On yield criteria and incipient plastic motion of soils 3282  
 On formulation of stress-strain relations for soils at failure 5138
- Plastic flexure of orthogonally reinforced concrete plates 7874  
 On yield criteria and collapse modes for plates 8430
- Sawko, F.**  
 A simplified approach to the analysis of piling systems 311  
 Computer analysis of bridges having varying section properties 1043
- Sawyer, G. A.**  
*See* Daehler, M. 8122
- Sawyer, R. F.**  
 Hydrazine-chlorine pentafluoride reaction in a laboratory rocket combustor 2018
- Sawyer, S. P.**  
*See* Mate, C. F. 1948
- Sawyer, W. C.**  
*See* Jackson, C. M., Jr. 1102
- Sawyers, K. N.**  
 Underwater sound pressure from sonic booms 2917  
 Theoretical changes in seismic travel time with changes in stress at depth 7421
- Saxe, R. F.**  
 Cavitation noise in nuclear reactors 9918
- Saxen, A.**  
 On the hydraulic discharge capacity of plastic drain pipes 9622
- Saxena, M. N.**  
 Stress-corrosion cracking 1018
- Saxena, S. C.**  
 Methods of measuring thermal conductivity of gases 1954  
*See also* Gambhir, R. S. 1200  
 Tondon, P. K. 3638
- Saxena, U. K.**  
*See* DeVries, M. F. 2466
- Saxl, I.**  
 The incorporation of slip dislocations in twins 3153  
*See also* Gempertlova, J. 5866
- Sayer, F. P.**  
 Plane stress theories 83  
 The particular integral in plate problems 3165
- Sayir, M.**  
 Thin circular cylindrical shell of ideal plastic material 2366  
 Prandtl's indentation problem 8429
- Sayre, W. W.**  
 Dispersion of silt particles in open channel flow 9630
- Scagnetti, M.**  
 Measurement of heat rates during the ignition phase of a solid propellant 7303
- Scala, E.**  
*See* Schuster, D. M. 102
- Scanlan, J.**  
 Elastic stiffness and the economics of fiber-reinforced plastics 4948
- Scanlan, R. H.**  
*See* Lucht, R. F. 2912  
 Sabzevari, A. 5606
- Scarf, F. L.**  
*See* Kennel, C. F. 8139

- Scarlett, B.  
A split ring annular shear cell for the determination of the shear strength of a powder 3286
- Scarpi, G.  
A possible solution of a case of unsteady laminar plane flow for non-Newtonian liquids 4314
- Schachter, S.  
Two-parameter theory for the fatigue of materials 283  
Two-parameter theory of fatigue of materials 8643  
Quantitative representation of the phenomena of understress and overstress in fatigue and definition of a damage function with two parameters 8644
- Schaefer, H.  
Stress functions of a continuum with moment stresses: Parts 1 and 2 2310  
The Cosserat continuum 8405
- Schaetzle, W. J.  
See Faircloth, J. M., Jr. 9815
- Schaffer, M. J.  
Hydromagnetic surface waves with alternating magnetic fields 5564
- Schaffner, H. J.  
Rheological behavior of sand vibrating in rotary viscosimeter 4191
- Schanzer, G.  
A method for determining the dynamic behavior of aircraft with various controllers 3961
- Schapery, R. A.  
Thermal expansion coefficients of composite materials based on energy principles 6545
- Scharpf, D. W.  
See Argyris, J. H. 4256  
Argyris, J. H. 5891  
Argyris, J. H. 5918  
Argyris, J. H. 5921  
Argyris, J. H. 5935  
Argyris, J. H. 7600
- Scharton, T. D.  
Substitute acoustic tests 6527
- Schauer, F.  
See Ricka, J. 9274
- Schechter, H. B.  
Three-dimensional nonlinear stability analysis of the Sun-perturbed Earth-Moon equilateral points 2070
- Schechter, R. S.  
See Mahler, E. G. 6328
- Schedling, J. A.  
See Hauck, H. 7413
- Scheele, G. F.  
See Meister, B. J. 3508
- Scheffel, J. L.  
See Lee, H. R. 6848
- Scheller, K.  
See Lawton, J. 1231
- Scheludko, A.  
Tension of liquid films and contact angles between film and bulk liquid 9633
- Schenck, H.  
See Lange, K. W. 8925
- Scher, A. M.  
The regulation of stroke volume in the resting, unanesthetized dog 2986
- Schetz, J. A.  
Turbulent mixing of a jet in a co-flowing stream 2680  
Approximate analysis of transient laminar boundary-layer development 7120  
Approximate solution of boundary layer problems with injection or suction 9709  
See also Lubard, S. C. 8796
- Schetzina, J. F.  
Apparatus for inducing high uniaxial compressive stresses in crystals 3375
- Schiesser, W. E.  
Operational methods for a convective diffusion equation 8906
- Schiff, L. B.  
See Tobak, M. 6318
- Schiffelgen, H.  
See Mann, H. 9229
- Schiff, J.  
See Janeschitz-Kriegl, H. 8876
- Schild, A.  
Electromagnetic two-body problem for particles with spin 1554
- Schilling, B. L.  
See Wright, R. H. 1180
- Schindelin, J.  
Transfer functions of a space vehicle with stabilization and attitude control by means of flywheel reaction bodies 7548
- Schindler, K.  
Stability of plasma sheaths 1279
- Schipper, J. F.  
A model of temperature rise induced by adiabatic strain-cycling in crystalline materials: Application of the dispersion relations 2940
- Schirmeister, K.  
Vibration absorption in cam mechanisms by using followers as dynamic filters 8555
- Schlack, A. L., Jr.  
Gyroscopically induced vibrations of plates and membranes 6000  
See also Raske, T. F. 3239  
Kessel, P. G. 7769
- Schlag, A.  
Transmission of water hammer through a bifurcation 6342
- Schley, C. H., Jr.  
Optimal control computation by the Newton-Raphson method and the Riccati transformation 4891
- Schlichting, H.  
Boundary-layer theory, 6th edition  
Some recent results in the aerodynamics of wings 6286  
9745
- Schlosser, F.  
Behavior of granular media 8418
- Schlosser, J. S.  
See Schild, A. 1554
- Schluter, A.  
See Gorenflo, R. 1294
- Schmaedeke, W. W.  
A new approach to the solution of unstable problems using variational techniques 7502
- Schmall, R. A.  
See Higgins, L. S. 5738
- Schmid, J.  
Solution of some boundary problems of heat conduction for cylindrical bodies provided with longitudinal fins 5479
- Schmid, R. M.  
A new type fiscalin blower for cooling internal-combustion engines 6355
- Schmid, W. E.  
See Richards, R., Jr. 6067
- Schmidt, E.  
VDI steam tables up to 800°C and 1000 atm 1190
- Schmidt, F.  
Flow through a thick core of earth in an arch dam 8225  
Estimation of flow through sealing layers of earth 9970
- Schmidt, F. W.  
Experimental study of the effects of an ultrasonic field in a nucleate boiling system 4541
- Schmidt, G.  
Spectral and scattering theory for Maxwell's equations in an exterior domain 674  
Nonlinear oscillations of rotating shafts 6819
- Schmidt, H.  
Pilot model of an analog process computer for a five-stand cold rolling tandem mill 793
- Schmidt, J. R.  
Analog simulation technique for modeling parallel-flow heat exchangers 1479
- Schmidt, R.  
Large deflections of a clamped circular plate 5031
- Schmidt, S.  
Investigations on the design of a light plane projector for the display of high-speed flows 4468
- Schmit, L. A.  
Finite deflection structural analysis using plate and shell discrete elements 147  
See also Monforton, G. R. 900
- Schneck, P.  
Comparison of some recent experimental and numerical results in Benard convection 547
- Schneider, B.  
New means of examining rock massifs 2456
- Schneider, P. J.  
Mechanical erosion of charring ablaters in ground-test and re-entry environments 653
- Schneider, R. A.  
A fully automatic portable blood pressure recorder 4809



- Schneider, R. W.  
Flat face flanges with metal-to-metal contact beyond the bolt circle 150
- Schneider, U.  
The grinding properties of the basic materials for useful dusts 8208
- Schneider, W.  
The propagation of three-dimensional shock waves in a medium at rest 411  
Experimental investigation of wing-body interferences in the Mach number range  $Ma = 0.5$  to  $Ma = 2.0$  1885  
*See also* Ludwig, H. 8882
- Schneiderman, A. M.  
Magnetic annular arc-driven shock tube 3623
- Schnitzler, W.  
Design of highly reliable flight control systems using multiple-unit principle 5748
- Schober, G.  
A constructive method for the conformal mapping of domains with corners 2187
- Schoener, G. A.  
*See* Chen, J. C. 2949
- Schoenhals, R. J.  
*See* Black, W. Z. 7251
- Schoessow, G. J.  
Graphite triple point and solidus-liquidus interface experimentally determined up to 1000 atm 1197
- Schoessow, T. D.  
*See* Barnoski, R. L. 6006
- Schoffen, H. M.  
Computer directed control and automatic data processing for a hydroelectric generating system 825
- Scholl, H. F.  
*See* Land, N. S. 6074
- Scholz, C. H.  
Experimental study of the fracturing process in brittle rock 2454  
The frequency-magnitude relation of microfracturing in rock and its relation to earthquakes 2455  
Microfractures, aftershocks, and seismicity 3292  
Microfracturing and the inelastic deformation of rock in compression 6935
- Scholz, N.  
An approximate determination of the blade drag for flow in an axial ring space 9853
- Scholz, S.  
Error limitation in initial value problems of ordinary differential equations of first order 5755
- Schoonover, R. M.  
*See* Bowman, H. A. 309
- Schopf, H.-G.  
Four-dimensional covariant kinematics of continuous media: Part I 2289
- Schornhorst, J. R.  
Effect of direction and wavelength dependent surface properties on radiant heat transfer 3699  
An experimental examination of the validity of the commonly used methods of radiant heat transfer analysis 7261
- Schram, P. P. J. M.  
*See* Tasso, H. 612
- Schreiber, R. E.  
A look at nuclear thermionic systems 7308
- Schreiner, K. E.  
Bending waves in impulsively loaded elastic-plastic plates 8569
- Schrock, V. E.  
*See* Witze, C. P. 7059
- Schroder, R.  
Resistance law of laminar flow of a simple non-Newtonian fluid 5269  
Investigation for the optimization of a foundation 7811  
Remarks on the calculation of turbulent velocity profiles in pipe flow 8009
- Schroeblor, W.  
Steplessly adjustable rolling contact gears 3421
- Schroeder, F. H.  
Approximate consideration of the effective width in the case of stress, stability and vibration problems 7683
- Schroeder, J.  
A general theorem for thin shells in classical plasticity 5029  
Unsymmetrical yield point loads of spherical domes 5957
- Schroeder, M. R.  
Reference signal for signal quality studies 6530  
Computers in acoustics: Symbiosis of an old science and a new tool 9935
- Schroeter, D.  
*See* Mugnier, D. 4133
- Schubart, J.  
Long-period effects in the motion of Hilda-type planets 1324
- Schubert, D. W.  
*See* Calcaterra, P. C. 1685
- Schueler, C. J.  
*See* Pate, S. R. 8810
- Schuller, F. T.  
Experiments on the stability of water lubricated herringbone-groove journal bearings: Part 1, Theoretical considerations and clearance effects 2171  
Experiments on the stability of water lubricated herringbone-groove journal bearings: Part 2, Effects of configuration and groove to ridge clearance ratio 8293
- Schultz, A. B.  
Determination of the stress-strain relations in a wire under transverse impact 238  
Material behavior in wires of 1100 aluminum subjected to transverse impact 1704  
Large dynamic deformations caused by a force traveling on an extensible string 9413  
Dynamic moduli and damping ratios in fiber-reinforced composites 9551
- Schultz, D. L.  
*See* Bellhouse, B. J. 1873
- Schultz, M. H.  
A priori bounds for solutions of quasi-linear elliptic differential equations 4827  
Quasi-linear elliptic boundary value problems 4828
- Schultz, T. J.  
New acoustical test facilities of the National Gypsum Company 8187
- Schultz-Grunow, F.  
Electro- and magnetohydrodynamics 2840  
Influence of longitudinal wall curvature on the stability of boundary-layer flow 3548
- Schulz, H. H.  
Friction between ice and ice or other solid bodies as a relaxation effect 725
- Schulz, S. C. G.  
An adiabatic calorimeter for the internal energy of water and water vapor 3639
- Schumacher, R. A.  
*See* Bayer, R. G. 4778
- Schumer, M. A.  
Adaptive step size random search 4903
- Schur, T.  
Developing a high-powered diesel engine for railway traction 3743
- Schurger, K.  
*See* Schnitzler, W. 5748
- Schuring, D.  
A contribution to soil dynamics 4190  
Theory of the cross-country wheel 8595
- Schurz, J.  
*See* Bayer, E. 3440
- Schuster, D. M.  
Single and multifiber interactions in discontinuously reinforced composites 102
- Schuster, J. R.  
*See* Soliman, M. 7273
- Schuster, K. B.  
*See* Leicester, R. H. 7708
- Schuster, R. L.  
*See* Hunter, J. H. 4205
- Schutz, A.  
The electrical charging of aerosols 4731
- Schutz, B. E.  
*See* Tapley, B. D. 645
- Schutza, A.  
*See* Vater, M. 1427
- Schwanghart, H.  
Lateral forces on steered tires in loose soil 6068
- Schwartz, H. S.  
Structural plastic composites incorporating new high modulus fibers 142
- Schwarz, F.  
*See* Hilbig, G. 8219
- Schwarz, H.  
Application of the frame-work method to the solution of plane stress problems 6706
- Schwarz, W. H.  
*See* Chun, D. H. 2573  
*See* Friche, C. A. 6358

- Schwarzenbach, J.  
See Gill, K. F. 1538  
Gill, K. F. 3043  
Gill, K. F. 4909
- Schwarzl, F. R.  
On mechanical properties of unfilled and filled elastomers 5888
- Schweitzer, P. H.  
Adaptive control for prime movers 67
- Schweitzer, S.  
See Cohen, I. M. 3775
- Schweizer, G.  
See Kreil, W. 5746  
Schnitzler, W. 5748
- Schweppe, F. C.  
The theory of amorphous cloud trajectory prediction 724
- Schwier, F.  
Study of the behavior of high-strength steel wire under multi-axial fatigue stresses 3337
- Schwirian, R. E.  
A new momentum-integral method for treating magnetohydrodynamic and simple hydrodynamic entrance flows 6461  
See also Crouse, J. E. 9794
- Schwoy, B.  
See Czerny, Gy. 9490
- Sciannarella, C. A.  
Gap effect on moire patterns 3364  
Gap effect in moire fringes observed with coherent monochromatic collimated light 5204  
Moire-fringe multiplication by means of filtering and a wave-front reconstruction process 9539
- Sciavicco, L.  
See Ruberti, A. 2231
- Scipio, L. A.  
See Marangoni, R. D. 6813
- Scordelis, A. C.  
See Lo, K. S. 9562
- Scott, D.  
Study of the effects of elevated-temperature lubricants on materials for rolling elements 4795  
Study of sintered carbides and surface-treated materials for unlubricated and elevated temperature rolling elements 4796
- Scott, D. W.  
See King-Hele, D. G. 1402  
King-Hele, D. G. 9032
- Scott, J. R.  
Some average sea spectra 1396  
On ship speed trial analysis 1410
- Scott, R. A. M.  
Holography: A review of the art 5209
- Scott, R. F.  
See Ko, H.-Y. 7804
- Scott, R. N.  
Myoelectric control of prostheses and orthoses 763
- Scott, V. H.  
See Sternberg, Y. M. 705  
Esmaili, H. 3845
- Scruton, R. E.  
See Bruckheimer, M. 1
- Scriven, L. E.  
See Miller, C. A. 3589
- Scrivener, J. C.  
See Croll, J. G. A. 7698  
Croll, J. G. A. 9352
- Scrivner, F. H.  
Some recent findings in flexible pavement research 7816
- Seader, J. D.  
See McCarthy, J. R. 9818
- Seal, C. E.  
On final value control 3037
- Seals, R. K., Jr.  
Analysis of MPD arcs with non-equilibrium ionization 8999
- Seamons, L. O.  
Shock testing with solid-propellant-powered guns 3275
- Seban, R. A.  
The effect of a spherical protuberance on the local heat transfer to a turbulent boundary layer 6388  
See also Back, L. H. 7995
- Sebesta, H. R.  
On the optimal-control problem for dynamical processes with variable delays 1518
- Sebestyen, Gy.  
Contributions to the cavitation tests on Francis model turbines 2736  
See also Varga, J. 371
- Sedel'nikov, T. Kh.  
Discrete component of the frequency spectrum of the noise of a free supersonic jet 667  
Dispersion equation for multilayer jets and certain other jets 7990  
See also Nazarova, L. I. 1822
- Sedov, L. I.  
Proceedings of the 2nd All-Union Conference on Theoretical and Applied Mechanics, Part I: Analytic mechanics - stability of motion - celestial ballistics 3093  
Proceedings of the 2nd All-Union Conference on Theoretical and Applied Mechanics, Part II: Vibrations, gyroscopes-theory of mechanisms-mechanics of liquids and gases 3094  
A dynamic theory of continual dislocations 8447
- Sedunov, Yu. S.  
The kinetics of the initial stage of condensation in clouds 9130
- Seebass, R.  
Far-field sonic boom waveforms 1897  
See also Lessen, M. B. 5347  
Tang, J. Y. T. 6456
- Seed, H. B.  
Undrained strength characteristics of cohesionless soils 2445  
Influence of soil conditions on ground motions during earthquakes 6906
- Seeger, A.  
See Wesolowski, Z. 5867
- Seeger, W.  
See Kelm, S. 6478
- Seemann, G. R.  
Subsonic plasma tunnel for evaluating re-entry flight instrumentation 2898
- Seemann, H. J.  
Method of treating metal and steel melts by vibration: Grain refinement by treating with ultrasonic waves during solidification 3317
- Seetharamiah, K.  
A direct method to obtain energy transfer data 4320
- Sefl, O.  
The optimal control of some systems with random perturbations 1532
- Sefton, D. J.  
See Cassell, A. C. 2365
- Segal, D. J.  
See McHenry, R. R. 5794
- Segedin, C. M.  
A note on geometric discontinuities in elastostatics 4027
- Segel, L. A.  
See Davis, S. H. 6401
- Seginer, A.  
An integral method for the calculation of heat transfer rate in laminar supersonic separated flows 9826  
See also Rom, J. 6267
- Seguin, M.  
Measurement and control of dynamic phenomena in structures 6844
- Sehgal, M. M.  
See Verma, P. D. S. 3437
- Seifer, A. D.  
Ray transmissions in an underwater acoustic duct with a bottom having curvature 7372
- Seifert, G.  
Almost periodic solutions and asymptotic stability 8
- Seifert, W.  
Controller design using frequency response and root locus methods 8339
- Seika, M.  
Photoelastic analysis of the maximum stress in a plate with a reinforced circular hole under uniaxial tension 5197
- Seireg, A.  
An approximate normal mode method for damped lumped parameter systems 1660
- Seitz, H.  
See Lehmann, T. 1601
- Sekhon, G. S.  
The shear stress on the shear plane 3312
- Seki, S.  
Relation between compressive strength of concrete and the effective cement-water ratio calculated from the hydration rate of cement 7886
- Sekiya, T.  
Analysis of a plane thermoelastic problem in symmetrical region

- Sekiya, T.** (*Continued*)  
under asymmetrical temperature distribution by mechanical analog procedure 8203  
*See also* Katayama, T. 5634
- Sekoguchi, K.**  
Two-phase flow characteristics in the disturbed flow region after mixing air and water 4358
- Sekundov, A. N.**  
Propagation of a turbulent jet in a co-stream 8786
- Selberg, B. P.**  
Drag coefficient of small spherical particles 7076
- Seliger, R. L.**  
Variational principles in continuum mechanics 4839
- Seliverstov, S. N.**  
Calculation of the laminar boundary layer on a helium-cooled sphere 1866  
Calculating the laminar boundary layer on the dividing streamline on the front surface of a segmented body in a supersonic gas flow 9721
- Sellers, F.**  
A note on the correlation of photoelastic and steel model data for nozzle connections in cylindrical shells 9353
- Sellen, J. M., Jr.**  
*See* Bernstein, W. 1295
- Sellers, W. H.**  
*See* Pabich, R. 2214
- Sells, C. C. L.**  
Two-dimensional laminar compressible boundary-layer program for a perfect gas 3541  
Design of a symmetrical section with specified pressure distribution 8877
- Selzer, H.**  
The temperature profile beneath the burning surface of a composite ammonium perchlorate propellant 6445
- Semenov, E. I.**  
Deformation forces in the two-stage forging of disks 258
- Semenov, P. I.**  
Calculation of an anisotropic rod under general twisting 3121  
Strain-deformation state of a thin walled orthotropic rod with an open cross section 8458
- Semenova, N. G.**  
Build-up of acoustic streaming 7379
- Semionov, P. I.**  
Some results of tests on torsion of anisotropic bars of oblong cross section 9341
- Simple, H. M.**  
The elastic deformation of a two-material infinite strip 5913
- Sen, A. K.**  
A simpler stability criterion for a class of nonlinear systems 6661  
*See also* Spero, D. M. 3769
- Sen, S.**  
*See* Ray, K. C. 6996
- Sen, S. K.**  
On the derivation of the computational formulas of the orthogonalization method of inversion including experiments on near-singular matrices and on the transformation of 2-D array to 1-D array 1474  
On an automatic computation of characteristic roots of a matrix 6631
- Senator, M.**  
Vibratory penetration of soils 249
- Sendeckyj, G. P.**  
*See* Chamis, C. C. 5656
- Sendelbeck, R. L.**  
*See* Carlson, R. L. 8508
- Senechal-Couvercelle, M.**  
Contribution to the theories of convection by liquid metals 1977  
Contribution to the theories of convection in liquid metals 8065
- Sengupta, A. K.**  
*See* Mitra, A. K. 165
- Sengupta, K.**  
A note on the problem of a spindle in inviscid liquid in the presence of a point source situated at an external point on its axis 1070  
The flow of inviscid fluid within a semi-infinite circular cylinder with fluid entering at the center of the closed end 1073  
Note on the slow and steady rotation of a solid formed by the revolution of a cardioid about its axis in a viscous fluid 5301
- Sengupta, P. R.**  
On the problem of two-layered semi-infinite body of transversely isotropic material 8417
- Senin, A. G.**  
On a signal filtering problem 2223
- Senitskii, Yu. E.**  
Transverse impact on a member with continuous or discontinuous cross section 4174
- Senoo, Y.**  
A photographic study of the three-dimensional flow in a radial compressor 4444
- Sentman, L. H.**  
Rarefied flow past a sphere 8792
- Senturk, F.**  
On the change of the bedroughness in flumes dependent of the bed form 6230
- Sepucha, R. C.**  
Accuracy of constant density and constant pressure assumptions for radiating shock waves 8782
- Serafimidis, P.**  
*See* Wragg, A. A. 1240
- Serata, S.**  
Application of continuum mechanics to design of deep potash mines in Canada 8601
- Serdyukov, V. V.**  
Stability of sandwich cylindrical shells beyond the elastic limit 9396
- Serebriakova, N. N.**  
On periodic solutions of dynamic, second order, nearly piecewise analytic systems 772
- Serebryakov, V. N.**  
Control of the dynamics of two-phase liquid-gas media under zero-gravity conditions by means of surface effects 1088
- Serensen, S. V.**  
Investigation of the processes of strain and the criteria of failure of a metal in the case of cyclic loading in the elastic plastic region 1735  
Damage due to low-cycle nonstationary loading 2484  
Development of material fatigue testing 2498  
Determining the probability of fatigue failure 3342
- Sergeev, G. T.**  
Transport processes in a reacting boundary layer 6301
- Sergeev, I. T.**  
*See* Shelyapin, R. S. 4061
- Sergeev, P. V.**  
Analysis and elements of the synthesis of two-crank five-bar kinematic chains 1784
- Sergeev, S. I.**  
Fluid oscillations in pipes at moderate Reynolds numbers 2719
- Sergeev, V. I.**  
A statistical method for the solution of the problems of precision of mechanical and electrical devices 7544
- Sergeev, V. L.**  
Methods of measuring large heat fluxes 8941
- Serov, E. P.**  
Determination of the coefficients of mass transfer between the flow core and the surface of a steam generating channel 4517
- Serrin, J.**  
On the mathematical basis for Prandtl's boundary layer theory: An example 1861  
*See also* McLeod, J. B. 5387  
McLeod, J. B. 8805
- Sesan, A.**  
On the failure probability in the theory of structural safety 3389
- Seshadri, V.**  
Step-transient input describing function for saturation-type nonlinearity 7533  
*See also* Rajagopalan, T. 8364  
Lahiri, A. K. 9972
- Seshagiri Rao, S. V.**  
Hydromagnetic natural convection flow in a non-Newtonian fluid between parallel porous walls 7310
- Seshagiri Rao, T.**  
Ultrasonic relaxation in mixtures of oxygen with carbon dioxide and benzene 9068
- Sestak, J.**  
Unsteady discharge of ideal fluids from vertical, constant cross section reservoirs 7048

- Sestak, J.  
Hagenbach factor prediction for flow of non-Newtonian fluids in pipes 8730
- Sestero, A.  
See Cavaliere, A. 8116
- Seth, S. M.  
Effect of shape on the discharge coefficient of sharp edged orifice plates 3461
- Sethi, S. C.  
See Dalela, S. 994
- Sethna, P. R.  
Some nonlocal results for weakly nonlinear dynamical systems 5075  
See also Hemp, G. W. 4006
- Severy, D. M.  
Preliminary findings of head support designs 3353
- Sevostianow, G. D.  
Two-dimensional transonic gas flow in the presence of a normal shock wave 6266
- Sevy, R. W.  
The prediction of internal vibration levels of flight vehicle equipment 6851
- Sewall, J. L.  
See Egle, D. M. 1674
- Sexl, T.  
On the resistance law of small spheres in viscous media 1813  
On the generalized Gauss and Stokes theorem 3904
- Sfintesco, D.  
High-strength bolting of beam-column joints 1050  
See also Valbert, G. 3400
- Sforza, P. M.  
Probe interference in hypersonic near wakes 6362  
Coupled radiation and conduction in free mixing 7252  
See also Trentacoste, N. 4384  
Trentacoste, N. 7077
- Shaalán, M. R. A.  
The effect of change in axial velocity on the potential flow in cascades 3597
- Shabaik, A. H.  
A theoretical method for the analysis of metal-working problems 2459
- Shabanov, L. A.  
Mixed problem of the theory of elasticity for an infinite plate with a circular hole 9286
- Shabarov, V. V.  
Effect of adhesives on the sensitivity of strain gage transducers 2509
- Shafer, R.  
See Corrigan, T. E. 49
- Shaffer, B. W.  
Pressurization of two-layered incompressible orthotropic tubes 902  
Elastic-plastic stress distribution within reinforced plastics loaded normal to its internal filaments 5900
- Shafran, J. S.  
See Luh, J. Y. S. 832
- Shagalova, S. L.  
Investigation of the aerodynamics and the combustion process in the TP-100 boiler furnace 3732
- Shah, A. H.  
See Datta, S. K. 6881
- Shah, H. C.  
See Lepore, J. A. 3215
- Shah, J. M.  
See Zarghamee, M. S. 157
- Shah, S. M.  
Entire functions satisfying a linear differential equation 3907
- Shah, S. P.  
Critical stress, volume change, and microcracking of concrete 3398
- Shah, V. L.  
See Kestin, J. 2669
- Shahady, P.  
See Laura, P. A. 7724
- Shahrokhi, F.  
Determination of solar radiation forces on satellite materials 4529  
Numerical solution to the radiation heat-transfer equation for scattering medium 5496  
An investigation of radiative heat transfer in participating media 9832
- Shaidukov, K. M.  
See Burman, Z. I. 5708
- Shaidurov, G. F.  
See Khlebutin, G. N. 3681  
Gershuni, G. Z. 3683
- Shaikhutdinov, Z. G.  
See Vinogradov, B. S. 7116
- Shain, Ya, S.  
Temperature stresses in a thick-walled cylinder 4707
- Shainskii, M. E.  
Vibratory grinding and polishing 267
- Shakhbazyan, K. Kh.  
See Levitskii, N. I. 7021
- Shakhnov, I. F.  
The ignition of a stoichiometric mixture in the laminar supersonic boundary layer on a flat plate 2004
- Shakhova, N. A.  
Thermal relaxation time of particles in a fluidized bed 3843
- Shakhtarin, B. I.  
Statistical dynamics of phase-lock AFC system with proportionally integrating filter 4876
- Shakirov, A. A.  
See Borschchevskii, Yu. T. 9096
- Shalashilin, V. I.  
Contact strains in a corrugation-reinforced cylindrical shell 5951
- Shalavin, A. M.  
See Pozdeev, A. A. 9324
- Shalnev, K. K.  
The mechanism responsible for the adhesion of a fluid jet to the wall of a fluid amplifier: The Coanda effect 2611  
The mechanism of the wall jet attachment in the jet amplifier: Coanda effect 4365  
Intensity of cavitation noise induced by a cylinder 8174
- Shamblin, J. E.  
See Ostwald, P. F. 263
- Shamina, O. G.  
The relation between longitudinal wave amplitude and focal depth (seismic, model and calculation data) 2961
- Shamis, I. A.  
See Kogan, P. A. 4380
- Shammamy, M. R.  
See Wang, N. M. 8434
- Shampine, L. F.  
See Bailey, P. B. 8318
- Shandarov, L. G.  
Flutter of a cylindrical shell with an elliptical cross section 9893
- Shane, R. M.  
Peak flood discharge confidence limits 7932
- Shang, J. S.  
Compressible, turbulent boundary layer with pressure gradient 2660
- Shankar, N. B.  
Plastic properties of certain clays 8584
- Shanklin, M. D.  
See Pochop, L. O. 2149
- Shannon, J. W.  
Use of atmometers in estimating evapotranspiration 2963
- Shannon, L. J.  
Burning velocity of ammonium perchlorate strands and crystals 2825  
A model of solid-propellant ignition in a neutral environment 8949
- Shannon, R. L.  
Combined free and forced laminar convection in a horizontal tube with uniform heat flux 3659
- Shapiro, J. N.  
Reduction of shock-wave equations of state to isothermal equations of state 7987
- Shapiro, W.  
Concepts for deep submergence hydrostatic shaft seals 3424
- Sharaf, S. G.  
Theory of motion of the planet Pluto: Part 1, Plutonian perturbations of the first order with respect to perturbing masses 3805  
Theory of motion of the planet Pluto: Part 2, Plutonian perturbations of the second order with respect to perturbing masses; Part 3, Recalculation of first-order Plutonian perturbations with respect to perturbing masses; Part 4, New elements of Pluto 3806
- Sharan, H. N.  
See Buzina, M. 4547
- Sharapova, D. I.  
See Gavelya, S. P. 5938
- Sharevskii, B. A.  
Ultrahigh-vacuum apparatus for calibration and collation of ionization gages 5447
- Sharfuddin, S. M.  
A two-dimensional discontinuous



- Sharfuddin, S. M. (Continued)**  
boundary-value problem for circular regions and Prandtl's integral equation 94  
Crack problem in two-dimensional elasticity theory 7604
- Sharland, I. J.**  
Intake noise from axial flow turbochargers and compressors 8027
- Sharma, D. L.**  
A general solution of elastostatic equations in a half-space 1572
- Sharma, H. S.**  
Motion of a finite sphere in rotating liquid: Motion started impulsively from rest 1097
- Sharma, M. P.**  
Propagation of sound pulses in a homogeneous layer under an inhomogeneous half space 8183
- Sharma, O. P.**  
Molecular backscatter of laser radiation from turbulent air  
Further calculations for hydrogen injection into laminar boundary layer flow 3719
- Sharman, P. W.**  
Optimum stiffness-weight design of peripheral and ladder frames 5236
- Sharp, C. R.**  
*See* Cockshutt, E. P. 6370
- Sharp, G. R.**  
Finite transform solution of the vibrating beam with ends elastically restrained 7756
- Sharp, J. J.**  
Spread of buoyant jets at the free surface 9629  
*See also* Barr, D. I. H. 4324
- Sharpe, W. N., Jr.**  
The interferometric strain gage 295
- Shatil, A. A.**  
Diffusion and kinetic features of combustion chambers with diffusion-flow gas burners 7301
- Shatilov, A. P.**  
Mushroom-shaped transducer for recording pressure in a shock tube 3615
- Shatko, I. I.**  
*See* Andreev, G. Ya. 2547
- Shaughnessy, J. D.**  
The determination of a stability indicative function for linear systems with multiple delays 3949
- Shaw, D. T. -K.**  
Approximate solution of the diffusion equation of the positive column 1283
- Shaw, R. P.**  
Diffraction of acoustic pulses by obstacles of arbitrary shape with a Robin boundary condition  
Discontinuities in one-dimensional thermoelastic wave propagation in an inhomogeneous medium 6038  
Diffraction of plane acoustic pulses by obstacles of arbitrary cross section with an impedance boundary condition 9925
- Shawki, G. S. A.**  
An experimental study of cup ironing 6915
- Shcherba, N. D.**  
*See* Mikitishin, S. I. 6106
- Shcherbakov, I. S.**  
An analogous case of nonstationary aerodynamic characteristics of wings 9747
- Shcherban, A. N.**  
Thermal gradient measurements in deep holes 4500
- Shcherbinin, E. V.**  
Integral methods in the theory of magnetohydrodynamic jets 1305
- Shchetinin, N. N.**  
General solution of some one-dimensional problems of nonstationary creep 107
- Shchitov, I. N.**  
Application of the method of averaging to the investigation of a nonlinear system of gyroscopic stabilization 2078
- Shchukin, V. K.**  
Generalization of test data for heat transfer in tubes with band-type swirl generator 1970  
Use of digital computers in the gradient method of studying heat transfer 5488
- Shchurchova, Yu. A.**  
*See* Balitskii, S. A. 3533
- Shea, J. H.**  
Propagation of plastic strain pulses in cylindrical lead bars 5136
- Sheer, A. F.**  
On the nature of conjugate vortex flows 3483
- Shefford, G. C.**  
*See* Gibson, R. E. 6069
- Sheiman, V. A.**  
*See* Tutova, E. G. 6420
- Sheindlin, A. E.**  
*See* Kirillin, V. A. 1306
- Sheklein, A. V.**  
*See* Alihodzhaeva, M. A. 1985
- Shelementev, G. S.**  
On stabilization of a nonholonomic system 5808
- Shelton, R. J.**  
*See* Hutchinson, A. W. 3970
- Shelyapin, R. S.**  
Results of experimental investigations of the bending of beams on soil bases 4061
- Shen, C. K.**  
*See* Lee, K. L. 9487
- Shen, H. W.**  
Meandering tendencies in straight alluvial channels 4325
- Shen, M. C.**  
Long waves in a stratified fluid over a channel of arbitrary cross section  
Spectra of water waves in channels and around islands 8844
- Shen, M. -K.**  
Note on a formula in the approximate theory of shallow elastic spherical shells 5012  
Note on the static criterion of elastic stability 5034
- Shenderei, B. I.**  
*See* Bolotovskii, I. A. 1774
- Sherbourne, A. N.**  
Moment-curvature models under reverse cyclic straining 5898  
Indeterminate systems under cyclic alternating loading 9581  
*See also* Krishnasamy, S. 3351  
Schroeder, J. 5029  
Ellyin, F. 5864  
Schroeder, J. 5957
- Sheremetev, M. P.**  
Investigation of the influence of transverse shear deformation on the bending of a square plate under concentrated loads 9348
- Sheridan, H. C.**  
*See* Cinque, A. A. 2583
- Sherman, D. I.**  
The periodic problems of Dirichlet and the two-dimensional theory of elasticity: Parts 1 and 2 6708
- Sherman, F. S.**  
*See* Hurlbut, F. C. 431
- Sherman, M.**  
Toroidal and poloidal field representation for convective flow within a sphere 7243
- Shermazanyan, Ya. T.**  
*See* Vartanyan, A. V. 1995
- Shermergor, T. D.**  
*See* Fokin, A. G. 5875
- Sherstyuk, A. N.**  
The theory of heat transfer in a turbulent flow 9825
- Sherwood, A. A.**  
The dynamic synthesis of a mechanism with time-dependent output 1766
- Sheshukov, E. G.**  
*See* Fomin, V. M. 1074
- Shesterikov, S. A.**  
*See* Lokoshchenko, A. M. 4044  
Lokoshchenko, A. M. 5917
- Sheu, C. Y.**  
Elastic minimum-weight design for specified fundamental frequency 9567  
*See also* Huang, N. C. 2381
- Shevchuk, P. R.**  
*See* Podstrigach, Y. S. 5638
- Shevelev, A. A.**  
Temperature stresses in a plate and choice of optimum heating regime 4708
- Shevelev, V. V.**  
*See* Tolokonnikov, L. A. 8449
- Shevetya, V. V.**  
Effect of surface-active substances on the dislocation distribution in fatigued metals 5720  
The influence of surface-active media on the formation of dislocation structure in the case of fatigue of metals 6120  
*See also* Kostetskii, B. I. 2345
- Shevnin, A. D.**  
The auroral oval and the ring current in the Earth's magnetosphere 9881

- Shevtsov, V. L.  
See Litoshenko, A. K. 5491
- Shi, Y.-Y.  
Uniformly valid asymptotic expansions for low Reynolds numbers flow past an ellipsoid of revolution of large aspect ratio 7072  
Asymptotic expansion of a hypervelocity atmospheric entry problem 9041
- Shibahara, M.  
Problems on the finite hollow cylinders under the axisymmetrical deformations 8399
- Shibuya, T.  
The semi-infinite plate subjected to impact load on the free boundary  
The semi-infinite body subjected to a concentrated impact load on the surface 9472
- Shideler, L. A.  
See Loper, C. R., Jr. 9610
- Shidlovskaya, I. I.  
The effect of a temperature difference across the lubricating film upon the load carrying capacity of a journal gas bearing of finite length 9148
- Shieh, L. S.  
See Chen, C. F. 8337
- Shieh, R. C.  
Some general principles of dynamic instability of solid bodies 8496
- Shieh, W. T.  
Elastic-modulus effect in the interaction of point defects with dislocation ribbons 4978
- Shieh, W. Y. J.  
Analysis of plate bending by triangular elements 4067
- Shield, R. T.  
Load-displacement relations for elastic bodies 8403
- Shifrin, E. G.  
Breakdown of the region of continuous supersonic flow in the case of flow past a convex profile with a receding shock-wave 7973
- Shigemura, T.  
See Mashima, Y. 5660
- Shih, J.-S.  
See Miles, J. B. 462
- Shih, K. T.  
Experimental anode heat-transfer studies in a coaxial arc configuration 4601
- Shih, T.-S.  
See Barbee, D. G. 5367
- Shi-igai, H.  
On the velocity distribution function of turbulent flow 1126
- Shikata, T.  
See Ishihara, T. 1067
- Shikhinskaya, R. E.  
Certain features of the acoustic radiation of a jet with a periodic structure 660
- Shilkrot, D. I.  
Some problems of the nonlinear theory of shells and plates and their computer solution 8485
- Shillingford, J. P.  
See Mills, C. J. 7475
- Shimada, H.  
See Kumagai, K. 869  
Chiba, M. 2503  
Kumagai, K. 6961
- Shimazaki, Y.  
See Ozaki, S. 4885
- Shimizu, H.  
Research on the control systems of magnetic bearing 8338  
A magnetic journal bearing 9153  
See also Tamura, H. 9442
- Shimizu, K.  
Viscoelastic properties and slip fracture of bentonite gels 247  
See also Gotoh, R. 248  
Kawasaki, T. 6369
- Shimizu, S.  
Analysis of the stiffened plate containing web frames 2368
- Shinagawa, H.  
See Suezawa, Y. 7857
- Shinbrot, M.  
See Kaniel, S. 379
- Shindo, A.  
Initial plastic yielding of a notched bar due to bending 5895
- Shingai, K.  
See Nisitani, H. 6946
- Shinners, S. M.  
Techniques of system engineering 2193
- Shinoda, G.  
See Umeno, M. 6749
- Shinoda, T.  
See Ito, T. 7938
- Shinozuka, M.  
On the bound of first excursion probability 9191
- Shinsky, F. G.  
How to control product dryness without measuring it 3065
- Shioda, S.  
Parallel flows of multi-component viscous plasma 599
- Shiomi, H.  
A photoelastic study of the stress distribution of box girders: Part 2 8655
- Shiota, H.  
See Mizoguchi, K. 7699
- Shipilin, A. V.  
Optimum forms with associated shockwaves 7985
- Shipman, J. S.  
See Roberts, S. M. 7
- Shippy, D. J.  
See Rizzo, F. J. 4024
- Shir, C. C.  
Convective instability in a temperature and concentration field 6248
- Shiraishi, N.  
On the torsional distortions of long-spanned, four-walled trussed structures 312  
See also Konishi, I. 4271  
Konishi, I. 5870
- Shirakawa, K.  
See Mizoguchi, K. 7699
- Shiratori, E.  
Cyclic plastic strain energy and unstable deformation in constant load low cycle fatigue test 6118  
The influence of prestrain on subsequent yield surfaces: Part 1 7647
- Shirokova, E. I.  
General features in the orientation of principal stresses in earthquake foci in the Mediterranean-Asian seismic belt 5678
- Shishkov, D. B.  
Coding internal states of finite automata by means of unitary codes 1509
- Shishnarev, O. A.  
Experimental research of the limits of deformations of steel in simple and complex loading 8663
- Shively, R. R.  
See Klahn, R. 5778
- Shizgal, B.  
The flow suspensions through tubes: Part 4, Oscillatory flow of rigid spheres 2618
- Shkadov, V. Ya.  
Wavelike modes of flow of thin layer of viscous fluid acted upon by gravitational force 5434
- Shkalikov, V. S.  
See Lassin, V. L. 4157
- Shkarbul, S. N.  
Calculation of losses in the working rotor of a centrifugal compressor 488
- Shkenev, Yu. S.  
Stability of elastic systems in a magnetic field 5981
- Shkhinek, K. N.  
See Zvolinskii, N. V. 3259
- Shklover, G. G.  
Investigation of a jet steam condenser 1846
- Shklyarov, L. I.  
See Goncharyuk, I. V. 6718
- Shkrabov, B. S.  
See Anokhin, A. M. 2253
- Shkvarnikov, A. P.  
See Tyutekin, V. V. 220  
Tyutekin, V. V. 6027  
Tyutekin, V. V. 8182
- Shlanchyauskas, A.  
See Zhukauskas, A. 1991
- Shliomis, M. I.  
Equations of motion of a fluid with hydromagnetic properties 2842
- Shmakov, V. P.  
A technique for simplifying the application of the Bubnov-Galerkin method to the solution of boundary-value problems 2185
- Shmeter, S. M.  
See Aleksandrov, V. S. 9126
- Shmurovich, E. G.  
Errors of a dynamic system in the presence of random perturbances 8348
- Shmyglevskii, Yu. D.  
See Naumova, I. N. 4577

- Shnee, Ya. I.  
A study of temperature patterns in a skin-type blade with nonuniform cooling air distribution over its profile 7232
- Shneerova, E. I.  
See Deryagin, G. A. 1026
- Shneiderovich, R. M.  
See Serensen, S. V. 1735
- Shnerenko, K. I.  
See Guz, A. N. 3177
- Shnidman, D. A.  
A generalized Nyquist criterion and an optimum linear receiver for a pulse modulation system 2265
- Shnirman, E. G.  
See Valkov, L. S. 9231
- Shoda, T.  
A study on the performance of box plenums with three branch ducts 1062
- Shoemaker, E. M.  
Some paradoxes associated with elastic-plastic limit load analysis 6163
- Shoji, K.  
See Fujii, K. 8343
- Sholokhov, A. A.  
See Minashin, V. E. 1966
- Shon, Do.  
More accurate finite difference equations of the bend of an oblique plate 7681
- Shopland, R. C.  
Application of strain seismographs to the discrimination of seismic waves 9122
- Shorb, A. M.  
See Wiederhorn, S. M. 1721
- Shore, J. H.  
See Osborn, J. J. 4811
- Shore, S.  
See Tan, C. P. 3402  
Tan, C. P. 4135
- Shorenstein, M. L.  
The hypersonic leading-edge problem 3516
- Short, B. J.  
Newtonian aerodynamics for circular cones modified to produce lift at zero angle of attack 8017
- Shotkin, L. M.  
Instability bounds in linearly stable systems 5804
- Shoua, E. D.  
The composite damping capacity of sandwich cantilever beams 5094
- Shouse, O. D.  
See Hsieh, P.-F. 12
- Showman, R. D.  
Simplified processing of star tracker commands for satellite attitude control 1502
- Shraiber, A. A.  
See Babukha, G. L. 7416
- Shrestha, G. M.  
A singular perturbation problem of laminar flow in a uniformly porous channel with large injection and with an applied transverse magnetic field 1267
- Shreve, R. L.  
Migration of air bubbles, vapor figures and brine pockets in ice under a temperature gradient 8268
- Shrivastava, S. P.  
See Abbott, M. B. 981  
Abbott, M. B. 2446
- Shrout, B. L.  
See Landrum, E. J. 1138
- Shtaerman, E. Ya.  
See Aronovich, G. V. 2735
- Shteinberg, T. S.  
Effect of the parameters of the system and the initial conditions on the extremal strains in the elastic connections of multi-mass systems 9441
- Shterenberg, Yu. O.  
See Butko, Yu. A. 9234
- Shtovba, Yu. K.  
See Deryagin, G. A. 1026
- Shukhmin, Yu. A.  
See Stepanov, M. N. 4233
- Shukurov, S.  
Effect of normal pressure on the frequency of the natural oscillations of shells slightly differing from cylindrical 9428
- Shulga, N. A.  
State of stress near a hole in a thin, physically nonlinear plate 908
- Shuman, B. M.  
See Khoroshun, L. P. 7626
- Shumanov, V. S.  
See Chekalin, E. K. 616
- Shur, G. N.  
See Vinnichenko, N. K. 9984
- Shvab, V. A.  
On the determination of the critical parameters of efflux of a heterogeneous medium 9687
- Shvachko, R. F.  
Sound fluctuations and random inhomogeneities in the ocean 9066
- Shvarev, V. V.  
See Nusinov, M. D. 6578
- Shvarts, I. A.  
Magnetohydrodynamic lubrication theory of a cylindrical bearing 744  
Investigations of basic characteristics of a magnetohydrodynamic journal bearings 1434
- Shvartsburg, A. B.  
See Tsytoich, V. N. 9003
- Shvartsman, D. A.  
See Mazurenko, L. V. 7813
- Shvets, A. I.  
An investigation of stream behind bodies in a supersonic flow 9667  
See also Gonor, A. L. 7979
- Shvets, V. B.  
Dependence of standard characteristics of eluvial clays on hydrophilic indexes 5142
- Shvetsov, A. V.  
See Kolchanova, E. A. 4925  
Kolchanova, E. A. 6623
- Shvetsov, G. I.  
Comparison of actual strains in the surface of foundation soils with computed values 5149
- Shvindlerman, L. S.  
Heating of "thin" bodies in liquid media 8926
- Shwartz, J.  
Radiation coupled viscous flows 3545
- Sias, F. R., Jr.  
See Coleman, T. G. 10006
- Sibirskii, K. S.  
See Lunkevich, V. A. 6607
- Sibulkin, M.  
Numerical solutions for radiating hypervelocity boundary-layer flow on a flat plate 1868  
Radiating hypervelocity Couette and boundary-layer flow in air 5385  
See also Dennar, E. A. 8917
- Sicha, M.  
Microwave investigation of acoustic waves in low-pressure plasma 2850
- Sichel, M.  
See Nichols, R. J. 6426  
Cheslak, F. R. 7066
- Sidar, M.  
An iterative algorithm for optimum control problems 2256
- Siddiquee, M. W.  
Transient stability of an ac generator by Lyapunov's direct method 7536
- Siddiqui, A.  
See Klingenberg, H. 1855
- Sideman, S.  
See Gollan, A. 8929
- Sidenius, G.  
An oil manometer with continuous electrical readout 3612
- Sides, G. R.  
See Barden, L. 8581
- Sidhu, H. S.  
See Megarefs, G. J. 6166
- Sidlyar, M. M.  
See Lobanov, L. I. 5640  
Lobanov, A. I. 9951
- Sidnev, V. I.  
Procedure for the investigation of inelastic strains in metals during cyclic impact loading 9554
- Sidorov, I. M.  
A method for the investigation of the stability of control systems 41
- Siebens, A. A.  
See Peyrot, A. H. 7468
- Siegel, R.  
Effects of reduced gravity on heat transfer 7270  
Analysis of two dimensional inviscid model of jet impingement under vertical-takeoff airplane 7945  
See also Gedney, R. T. 5285  
Goldstein, M. E. 5355
- Siegmund, D.  
See Robbins, H. 9200
- Siekmann, J.  
Theory of locomotion of swimming animals 1811

- Sieling, W. R.  
The effect of sting diameter and length on base pressure at  $M = 3.88$  9666
- Siemonsen, H. P.  
Impacts on plates, particularly glass plates 3273
- Sieradzki, M.  
Time-dependent deformations of prestressed concrete trusses 1759
- Sierakowski, R. L.  
An exact solution to the elastic deformation of a finite length hollow cylinder 6532
- Sierra, P. J.  
See Espinosa, A. F. 8170
- Sievers, H.  
Simplified calculation of orthotropic bridge decks with hollow ribs 8698
- Siewert, W. H.  
See Weiss, H. G. 388
- Sifner, O.  
Some optical methods for the measurement of high temperatures 530
- Sigilito, V. G.  
See Rubinstein, N. 6014
- Sigilito, V.  
See Gustafson, K. 6615
- Sigli, D.  
See Bourot, J. -M. 8755
- Signorini, C.  
See Egidì, A. 8254
- Sigov, Yu. S.  
See Maslennikov, M. V. 9884
- Sih, G. C.  
Singular solution near a rigid ribbon excited by plane waves 2431  
Some elastodynamic problems of cracks 6101  
See also Pagano, N. J. 2311  
Kassir, M. K. 3110  
Hartranft, R. J. 6716  
Loeber, J. F. 7798  
Kassir, M. K. 9072  
Kassir, M. K. 9305
- Sikarskie, D. L.  
See Paul, B. 4996  
Miller, M. H. 5168
- Silaeva, O. I.  
The nature of the anisotropy of the elastic properties of rocks 3294
- Silaeva, V. I.  
See Aleksandrov, V. S. 9126
- Silantev, B. A.  
See Goldshtik, M. A. 1823
- Silas, G.  
On the stationary motion of an impact vibration system with non-instantaneous collision 3224  
Study of the periodic motion of a vibrating system with one degree of freedom 5983
- Silberberg, M. Y.  
See Brennan, R. D. 9225
- Silin, A. A.  
See Dukhovskoi, E. A. 1421
- Silli, C.  
On the propagation of an extraordinary discontinuity wave in a thermoelastic wire 683
- Sills, J. A.  
Transformations for infinite regions and their application to flow problems 6246
- Silva, A. F.  
See Dannenberg, R. E. 8145
- Silver, I.  
Naval rocket motors and structural integrity considerations. 5554
- Silver, R. S.  
See Tyldesley, J. R. 7143
- Silverman, I. K.  
See Knostman, H. D. 5854
- Silverman, L. M.  
Properties and application of inverse systems 7528
- Simakin, A. M.  
See Burmistrov, E. F. 5975
- Simakova, E. N.  
Plane pursuit problem 9267
- Simbirskii, D. F.  
Accuracy of measurement of the instantaneous temperatures of gas flows by the method of two-heat-receivers 528
- Simecek, J.  
Measuring asbestos dust 2954  
Comparative investigation of methods for particle size determination 4736
- Simeonov, S. V.  
A method of solving systems of nonlinear equations of the potential type 3931
- Simitses, G. J.  
Buckling of eccentrically stiffened cylinders under torsion 4102
- Simmons, G. M.  
Nongrey radiative heat transfer between parallel plates 7253
- Simmons, J. A.  
Solution of the Stefan problem for whisker evaporation 9834
- Simon, A.  
Nonlinear transport in weakly ionized plasma 2854  
Convection of weakly ionized plasma in a nonuniform magnetic field 2855
- Simon, R.  
See Kollasch, C. 9658
- Simon, U.  
Radial compressors in the case of backward flow 7185
- Simoneau, R. J.  
Laminar Couette flow with heat transfer near the thermodynamic critical point 9641
- Simonen, T. C.  
Plasma electron density measurement with a feedback oscillator 2880
- Simonenko, I. B.  
See Ped, V. N. 6381
- Simonov, I. V.  
The dynamic problem of forcing an axisymmetric punch into an elastic half-space 2314  
See also Kovshov, A. N. 1700
- Simons, D. B.  
See Alger, G. R. 1085
- Simoyu, L. L.  
See Lagun, V. P. 8105
- Simpliceanu, V.  
An improved installation for the testing of hydraulic concretes during reiterated frost and thaw cycles 1030
- Simpson, A.  
On Kron's eigenvalue procedure and related methods of frequency analysis 4138
- Simpson, R. L.  
Preston tubes in the transpired turbulent boundary layer 3551
- Simuni, L. M.  
Solution of problems of the motion of a viscous fluid connected with the flow past a cylinder and a sphere 9656
- Sinai, Ya. G.  
See Minlos, R. A. 1941
- Sinaiskii, E. G.  
On the thermal boundary layer on an electrode 4598
- Sindelar, J.  
Stabilizing the amplitude of mechanical oscillations and feed current by means of a variable structure circuit 54
- Sinelnikov, K. D.  
A bounded plasma flux in a magnetic field 2862
- Sinelshchikov, V. S.  
Hydraulic calculation of uniform aerated flow 4328
- Sines, G.  
See Babel, H. W. 2474
- Singer, A.  
Mathematical model analysis of pressure pulse propagation of the aortic wall 6588  
Computed ventricular acoustic frequency 8300
- Singer, D.  
The programming of the DDC controller with fixed set of algorithms 821  
Disturbance-variable feedforward, autonomy and invariance of control systems 6648
- Singer, J.  
Buckling of discretely ring stiffened cylindrical shells 4105  
Buckling of electroformed conical shells under hydrostatic pressure 6786  
The influence of stiffener geometry and spacing on the buckling of axially compressed cylindrical and conical shells 7741
- Singh, B.  
A text book of soil mechanics: 2nd edition 3276
- Singh, G.  
Prediction of ignition delay in diesel engines 3739
- Singh, J.  
See Natarajan, R. 6411
- Singh, M. P.  
An exact solution in rotating flow 3510



- Singh, R. N. P.**  
Functional analysis approach to optimal control problems with multiple constraints on the controlling function 6674
- Singh, R. P.**  
*See Darbari, G. S.* 7383
- Singh, S. J.**  
On the summation of certain Legendre series 5773  
*See also Ben-Menahem, A.* 9315
- Singh, S. S.**  
Flow in the inlet length of a convergent channel with homogeneous suction at the wall 4413
- Singh, W.**  
Finite flexure of a reinforced aeolotropic elastic cuboid 1586  
*See also Chaudhry, H. R.* 8392
- Singleton, R. E.**  
Compressible laminar boundary layer on swept infinite cylinder with suction 5389
- Sinha, D. B.**  
*See Basu, S. P.* 3705
- Sinha, D. K.**  
A note on mechanical response of a piezoelectric (monoclinic) plate characterized by a time-decaying polarization gradient 2408  
Note on deformations of a rotating disk of magnetostrictive material characterized by a viscoelasticity of Voigt type 2441  
A note on the magnetohydrodynamic two-layer viscous stratified flow down an inclined plane 8124  
A note on mechanical response in a piezoelectric ceramic transducer under the influence of a body-force 9444
- Sinha, H.**  
Note on the torsional vibration of a nonhomogeneous thin bar of varying cross section in a magnetic field 3232
- Sinha, R.**  
*See Zakkay, V.* 461  
*See Jain, P. L.* 1053  
*See Fox, H.* 9683
- Sinicki, G.**  
*See Delorme, J. F.* 8899
- Siniscalchi, G.**  
*See Cicala, P.* 5944
- Sinitsin, I. N.**  
String generator auto-oscillations at additive noise 2239  
Self-oscillations of a wire oscillator in the presence of additive noise 7540
- Sirazetdinov, T. K.**  
Analytical design of controls for magnetohydrodynamic processes: Part 1 8371
- Sircar, R.**  
Deflection of a rectangular plate on an elastic foundation 7695
- Sirieix, M.**  
Formation and development of a wake 401  
*See also Carriere, P.* 402
- Sirisena, H. R.**  
Optimal control of saturable linear plants for minimum integral-square-error and similar performance criteria 8366  
Optimal control of saturating linear plants for quadratic performance indices 8376
- Sirotnin, E. I.**  
*See Gorshunov, L. M.* 2092
- Sirovich, L.**  
Approximate method in kinetic theory: Couette flow and the Kramer's problem 9701  
*See also Salathe, E. P.* 2038  
*See Salathe, E. P.* 4580  
*See Goldman, E.* 7104
- Sitkei, G.**  
Some problems of computing the heat transfer and heat-load in antechamber diesel engines 592
- Siva Reddy, A.**  
Some studies on creep of partially saturated clays 245  
*See also Srinivasan, R. J.* 8594
- Sivasankar, R.**  
*See Sarma, K. V. N.* 5280
- Sivashinskii, G. I.**  
On existence and stability of solutions of steady-state theory of a thermal explosion 4655
- Sivkov, N. R.**  
*See Gogonenkov, G. N.* 5682
- Sjoberg, B.**  
*See Dahlquist, G.* 8333
- Skachkov, I. A.**  
Dynamic loads on columns in their transportation 2404
- Skalafuris, A. J.**  
The structure of a shock front in atomic hydrogen: Part 3, The radiative relaxation region 5342
- Skaloud, M.**  
*See Massonnet, Ch.* 5070
- Skews, B. W.**  
The shape of a diffracting shock wave 409
- Skibenko, E. I.**  
*See Busol, F. I.* 417
- Skilling, J.**  
Stability of an anisotropic relativistic plasma in a magnetic field 3770
- Skinner, J. J., Jr.**  
Friction and heat transfer in the flow induced by a subsonic heat source 1221
- Skinner, L. A.**  
Vapor bubble growth on a semi-infinite solid 8931
- Skinner, L. M.**  
*See Blackman, M.* 1949
- Skinner, M. M.**  
*See Tullis, J. P.* 8870
- Skoglund, H. N.**  
Gillespie approach to penetrability 9103
- Skoglund, V. J.**  
Numerical techniques for viscous compressible flows with shock waves 7107
- Skorobogatko, A. A.**  
*See Polozhii, G. N.* 9288
- Skorodumov, S. A.**  
*See Semenov, E. I.* 258
- Skoryupin, V. A.**  
Destruction of the anomalous skin layer in a turbulent plasma 8123
- Skowronski, J. M.**  
*See Bogusz, W.* 196
- Skreiner, M.**  
Methods to identify the mobility regions of a spatial four-link mechanism 4304  
On the points of inflection in general spatial motion 4308  
The dynamics of hydraulically actuated linkage mechanisms 6194
- Skubachevskiy, G. S.**  
Investigation of vibration and stability of aircraft engine components 8552
- Skvor, Z.**  
On the acoustical resistance due to viscous losses in the air gap of electrostatic transducers 9936
- Slaby, J. G.**  
Heat-transfer coefficients for hydrogen flowing through parallel hexagonal passages at surface temperatures to 2275 K 2780
- Sladospitskii, A. D.**  
A data unit for the measurement of displacement, deformation and acceleration during work on low-modulus materials 3372
- Slapack, P.**  
Buckling of rectangular sandwich plates: Variational derivation of the problem 5979
- Slatova, N. G.**  
Algorithm for modeling the melt supply section of a steel mill 7542
- Slattery, J. C.**  
Multiphase viscoelastic flow through porous media 7923
- Slattery, R. E.**  
*See Herrmann, J.* 2625
- Slepian, D.**  
A numerical method for determining the eigenvalues and eigenfunctions of analytic kernels 6633
- Slepneva, L. V.**  
The influence of boundary conditions on the distribution of stress of an elliptical opening in a spherical shell 9354
- Slepukhin, A. I.**  
*See Pshenichnyi, V. D.* 9854
- Slepyan, L. I.**  
Resonance phenomena in plates and shells with a running load 6011
- Slesarev, A. M.**  
*See Bessonov, V. G.* 794
- Slezov, V. V.**  
Diffusion-dislocation mechanism of crystal flow with allowance for elastic interaction between dislocation loops 890

- Slaney, H. E.**  
Rare earth fluorides and oxides:  
An exploratory study of their use  
as solid lubricants at temperatures  
to 1800°F (1000°C) 9147
- Sloan, A. D.**  
Computer program for dimensional  
analysis 6639
- Sloan, D. M.**  
Magnetohydrodynamic flow in an  
insulated rectangular duct with an  
oblique transverse magnetic field 2032
- Sloniewsky, A. R.**  
Modified Zimm-Crothers rotating-  
cylinder viscometer 1176
- Slot, T.**  
Experimental procedures for low-  
cycle-fatigue research at high tem-  
peratures 1748  
Stress analysis of plane perforated  
structures by pointwise matching  
of boundary conditions 4940  
Note on stresses and displacements  
in square plates and cylinders with  
pressurized central circular holes 9292
- Sluszkiewicz, T.**  
*See Krzyworezka, P.* 809
- Slyusarev, V. A.**  
*See Svidzinskii, A. V.* 8038
- Small, R. L.**  
Probe measurements of plasma rings  
injected into an axial guide field 1310  
*See also Valsamakis, E. A.* 3784
- Smart, E. F.**  
*See Rowe, G. W.* 8288
- Smeltzer, D. B.**  
Investigation of a nearly isentropic  
mixed-compression axisymmetric  
inlet system at Mach numbers 0.6  
to 3.2 1100
- Smenkovskaya, P. T.**  
Influence of vibration on heat and  
mass transfer in a capillary-porous  
material 8224
- Smetana, F. O.**  
*See Pavagadhi, L. J.* 430
- Smeyers, P.**  
*See Iweins, P.* 8034
- Smimov, M. S.**  
Generalized equation of moisture  
diffusivity and its solution 6572
- Smirnov, A. I.**  
Dynamic stability and oscillations  
of sandwich panels in supersonic  
flow 5604
- Smirnov, A. S.**  
Boundaries of the region of values  
of the mean reduced error for  
pulse-code telemetering systems 9253
- Smirnov, B. M.**  
Electron-ion recombination 3777
- Smirnov, L. N.**  
Formulas for the calculation of  
derivatives of harmonic functions 9204
- Smirnov, V. I.**  
Screening of charged aerosol parti-  
cles in a turbulent atmosphere 9989
- Smirnov, Yu. N.**  
The stability of motion of a charged  
particle in the simplest geometry  
of a modulated magnetic field 4913
- Smirnova, N. P.**  
*See Klimovskaya, L. D.* 1449
- Smiser, L. W.**  
*See Eppler, R. A.* 6224
- Smit, J.**  
*See Kwakernaak, H.* 1769
- Smith, A. A.**  
The computer aided analysis and  
design of a tidal channel 3451
- Smith, A. B.**  
Beyond ultrasonics 1367  
*See also Smith, H. I.* 7385
- Smith, A. C.**  
Inequalities between the constants  
of a linear microelastic solid 1574
- Smith, A. G.**  
Recalculation of the Spalding func-  
tion for continuous and source heat  
flux 1971
- Smith, A. M. O.**  
*See Jaffe, N. A.* 2654  
*Hess, J. L.* 5288  
*Wazzan, A. R.* 7148
- Smith, B. L.**  
Vibration of a circular cylindrical  
shell closed by an elastic plate 1678
- Smith, C. A. M.**  
Photographic recording of rail car  
impacts: A strip camera technique 9480
- Smith, C. D.**  
Simplified design for flume inlets 7045
- Smith, C. G.**  
Kelvin-Helmholtz instability for a  
collisionless plasma model 5578
- Smith, C. L.**  
*See April, G. C.* 30
- Smith, C. S.**  
Bending, buckling and vibration or  
orthotropic plate-beam structures 8547  
*See also Alper, P.* 2275
- Smith, D.**  
Interpretation of impact sensitivity  
test data 3813
- Smith, D. J. L.**  
Investigations on an experimental  
single-stage turbine of conservative  
design: Part 1, A rational aero-  
dynamic design procedure 6451  
Investigations on an experimental  
single-stage turbine of conservative  
design: Part 2, Test performance  
of design configuration 6452
- Smith, D. R.**  
*See Finn, R.* 1084
- Smith, E.**  
The stress to move a dislocation  
through a solid containing a pile-  
up of dislocations 889  
The interaction between dislocations  
and inhomogeneities: Part 1; Part  
2, A screw dislocation pile-up in an  
infinite body containing an ellip-  
tically cylindrical rigid inhomog-  
eneity 1610  
The stress concentration at a step on  
the surface of a brittle crystalline  
solid 2312
- Planar distributions of dislocations, 3149  
The piling up of screw dislocations  
against a circular cylindrical rigid  
inclusion 4980  
Crack bifurcation in brittle solids 6098  
Cleavage fracture in mild steel 6931  
Cracks and dislocation arrays in  
heterogeneous media 8441
- Smith, E. B.**  
*See Fendell, F. E.* 3713
- Smith, F. A.**  
*See Baratono, J. R.* 8173  
*Jones, P. J.* 9450
- Smith, F. I. P.**  
*See Craik, A. D. D.* 5426
- Smith, F. W.**  
System Laplace-transform estima-  
tion from sampled data 4873
- Smith, G. L.**  
*See Dillon, J. L.* 9810
- Smith, G. N.**  
Construction pore pressures in an  
earth dam 2451
- Smith, G. W.**  
Effect of internal stress distribution  
on magnetomechanical damping 5095
- Smith, H. I.**  
Transmission of gigahertz ultrasonic  
waves through optical-contact  
bonds at room temperature 7385
- Smith, H. W.**  
Poisson's ratio determined with  
strain rosettes 9544  
*See also Chapel, R. E.* 4928
- Smith, J. C.**  
Strain-wave propagation in strips of  
natural rubber subjected to high-  
velocity transverse impact 229  
On the coupling of longitudinal and  
transverse waves in a linear three-  
element viscoelastic string subject-  
ed to transverse impact 7795
- Smith, J. E.**  
*See Corum, J. M.* 9576
- Smith, J. H. B.**  
Improved calculations of leading-  
edge separation from slender, thin,  
delta wings 2692
- Smith, J. O.**  
*See Appl, F. J.* 2382
- Smith, J. W.**  
*See Gowen, R. A.* 6387  
*Reddy, K. V. S.* 7402
- Smith, K. G.**  
*See Winter, K. G.* 7161
- Smith, K. J., Jr.**  
*See Bashaw, J.* 5631
- Smith, K. V. H.**  
Turbulence measurement in water  
using hot-film sensors 2684
- Smith, N.**  
*See Dennis, S. C. R.* 5486
- Smith, P.**  
A linear analysis of steady surface  
waves on a viscous liquid flowing  
down an inclined plane 1902

- Smith, P. D.**  
Calculation methods for three-dimensional turbulent boundary layers 3547  
*See also* Turner, D. N. 4218
- Smith, P. J.**  
*See* Zuk, J. 8774
- Smith, R. D.**  
Modified, more rapidly converging modal series representation for mechanical admittance 3254
- Smith, R. E.**  
Consolidation under constant rates of strain 7801
- Smith, R. F.**  
*See* Wood, R. H. 6181
- Smith, R. K.**  
Radiation effects on large fire plumes 5498
- Smith, R. S.**  
*See* Jackson, C. M., Jr. 1102  
*See* Jackson, C. M., Jr. 7162
- Smith, R. T.**  
Sound propagation in liquid metals 4693
- Smith, T. F.**  
*See* Hering, R. G. 6410
- Smith, T. N.**  
*See* Ansley, R. W. 383
- Smith, W. E.**  
Applications of Hilbert transform theory to numerical quadrature 9209
- Smith, W. H.**  
*See* McAlevy, R. F., III 6437
- Smith, W. R.**  
*See* Grosse, F. A. 6275
- Smitt, L. W.**  
The reversed spiral test: A note on Bech's spiral test and some unexpected results of its application to coasters 1419
- Smolich, S. A.**  
*See* Maksimov, L. M. 3376
- Smolin, R.**  
*See* Hershey, D. 1439
- Smolin, V. N.**  
Critical heat flux with longitudinal flow round a rod bundle. 4510
- Smolitskii, Kh. L.**  
Motion of a gyroscope in universal suspension on a uniformly rotating base 4011
- Smolnikov, V. A.**  
Generalization of the Euler case of motion of a solid 862
- Smolskii, B. M.**  
*See* Sergeev, G. T. 6301
- Smolyansky, V. A.**  
Some problems of classification of mass objects 3999
- Smorodinov, M. I.**  
*See* Nusinov, M. D. 6578
- Smotrin, N. T.**  
Creep of organic glass (Plexiglas) Strength of rigid polyvinylchloride during compound loading 4245
- Smylie, D. E.**  
*See* Lilley, F. E. M. 2442
- Smyshlyaeva, L. G.**  
Determination of coefficients of difference equation describing pulse system 1484
- Smyslow, J. J.**  
Semiconductor strain gages (tensoresistors) with simple production 6965
- Snedden, J. D.**  
*See* Henderson, J. 6152
- Sneddon, I. N.**  
The stress intensity factors for a Griffith crack whose surfaces are loaded asymmetrically 8407
- Sneper, A. Kh.**  
*See* Magalif, V. Ya. 5947
- Snepe, R.**  
*See* Lewillie, L. 1445
- Snitko, A. N.**  
Design of flexible supports embedded in soil with variable subgrade coefficient 8592  
*See also* Snitko, N. K. 5141  
*See also* Snitko, N. K. 6061
- Snitko, N. K.**  
Calculation of rigid and flexible supports embedded in the ground under the simultaneous action of horizontal and vertical forces 5141  
Deformation calculation of flexible supports in a soil mass with consideration of the effect of a longitudinal force 6061
- Snow, D. R.**  
Caratheodory-Hamilton-Jacobi theory in optimal control 2262
- Snowdon, J. C.**  
Vibration and shock in damped mechanical systems 3216
- Snyder, H. A.**  
Transient response of a differentially heated rotating annulus 6565  
Stability of rotating Couette flow: Part 1, Asymmetric waveforms 7958
- Snyder, M. A.**  
Expansion of a cylindrical piston into a conducting fluid 1268
- Snyder, W. T.**  
Energy dissipation in MHD duct flow 8114  
*See also* Powers, W. L. 1291  
*See also* Thompson, E. R. 5398  
*See also* Shindo, A. 5895
- Soare, M.**  
A theoretical and experimental study of concrete rectangular slabs reinforced with high strength steel 5246  
Cooling towers with constructional imperfections 5943  
Application of finite difference equations to shell analysis 7697
- Sobczynska, Z.**  
Action of a moving concentrated heat source in elastic space 9084
- Sobierajski, F.**  
*See* Dunn, J. C. 4881
- Sobieszczanski, J.**  
Structural modification by perturbation method 5974  
Experiments on the stability of triangular plate under load in its own plane 5974
- Sobolev, N. D.**  
*See* Egorov, V. I. 2942
- Soboleva, V. A.**  
Flexure of a shallow shell under the action of an arbitrary normal load and nonuniform temperature field 139
- Sobornikov, Y. P.**  
Residue arithmetical operations with integers of arbitrary sign and their circuit realization 3021
- Sobotka, Z.**  
The static solution of the ultimate loading of rectangular plates using energy yield conditions 3166
- Sockel, H.**  
Turbulent flow in smooth pipes with circular cross section 9623
- Soda, N.**  
Adhesive wear: Part 3, The lubricating effect of gas molecules on metallic wear 729  
Wear of metals in reciprocating friction 7451
- Soderquist, B.**  
Creep rupture under uniform radial tension of a disk with a circular hole 9514
- Soedel, W.**  
Stresses in shallow axisymmetric shells using a casting procedure 9529
- Soeder, R. H.**  
*See* Albers, J. A. 5615
- Soerjadi, R.**  
On the calculation of integrals over polygonal surfaces 3020  
On the computation of the moments of a polygon, with some applications 9205
- Softley, E. J.**  
Experimental observation of transition of the hypersonic boundary layer 9717
- Soga, K.**  
*See* Iwasaki, M. 3624
- Sohne, W.**  
Four-wheel drive or rear-wheel drive for high power farm tractors 8973
- Soifer, M. T.**  
Reducing the number of mass points in a lumped parameter system 5985
- Sojka, J.**  
*See* Murzewski, J. 6164
- Sokolov, A. P.**  
*See* Rubanova, G. M. 3691
- Sokolov, B. I.**  
Question of the choice of a rational form for the working blade of the rotor of a centrifugal pump 4446
- Sokolov, Yu. D.**  
Method of averaging functional corrections 7493
- Sokolovskii, P. I.**  
*See* Arone, R. G. 1006
- Sokolovskii, V. V.**  
Some forms of slopes of uniform strength 5158
- Sokolowski, M.**  
*See* Banks, C. B., Jr. 3112  
*See* Matczynski, M. 4033

- Sokolskii, V. N.**  
Russian solid-fuel rockets 658
- Solbrig, C. W.**  
Turbulent mass transfer with an arbitrary order surface reaction in a flat duct 2682
- Soldan, J.**  
Random optimizer of dynamic systems 3027
- Solecki, R.**  
Vibration of a floating plate: Part 2 1671
- Soler, A.**  
Higher order effects in thick rectangular elastic beams 2294
- Solignac, J.-L.**  
Interferometric study of a Mach 5 flow around a sphere 4378
- Soliman, M.**  
Transient heat transfer for turbulent flow over a flat plate of appreciable thermal capacity and containing time-dependent heat source  
A general heat transfer correlation for annular flow condensation 7273
- Soliman, M. M.**  
Flow around 180° bends in open rectangular channels 8740
- Sollmann, H.**  
An investigation of the problem of grip damping in a model of a blade array 9446
- Solomatina, E. K.**  
See Gringauz, K. I. 9012
- Solomon, J. L.**  
See Clough, W. R. 9515
- Solomon, L.**  
Linear elasticity 1566
- Solomon, L. P.**  
Nonlinear bubble oscillations  
Geometrical acoustic propagation with frequency dependence  
Acoustic propagation in a continuously refracting medium 700  
8167  
9926
- Solomons, C.**  
Oscillating plate viscometry: Part 1, Theoretical principles 8881  
See also White, M. S. 8880
- Soloukhin, R. I.**  
Temperature measurements behind detonation fronts in gases 2099
- Solov'ev, G. N.**  
See Lebedev, S. L. 9128
- Solymosi, F.**  
Effect of cadmium oxide and cadmium perchlorate on the decomposition and ignition of ammonium perchlorate 7293
- Somerset, J. H.**  
Influence of nonlinear inertia on the parametric response of rectangular plates 7767
- Somlo, J.**  
Nonlinear compensation in control theory 1513
- Sommer, R. W.**  
See Crane, H. L. 4621
- Sommers, R. D.**  
See Grier, N. T. 8073
- Son, J. S.**  
Velocity gradients at the wall for flow around a cylinder at Reynolds numbers from  $5 \times 10^3$  to  $10^5$  6238  
Numerical solution for the flow around a cylinder at Reynolds numbers of 40, 200, and 500 9650
- Sonett, C. P.**  
Establishment of a lunar unipolar generator and associated shock and wake by the solar wind 3853
- Soni, A. H.**  
Roberts' cognates of space four-bar mechanisms with two general constraints 8716
- Sonnerup, B. U. O.**  
See Gerdin, G. A. 8120
- Sonnerup, L.**  
See Hirsch, C. 1793
- Sonntag, G.**  
Similarity analysis of corrugated ducts in soft bedding 6788
- Sonshine, R. M.**  
The Stokes translation of a particle of arbitrary shape along the axis of a circular cylinder: Parts 1 and 2, Filled to a finite depth with viscous liquid 2607
- Stonestegard, D. A.**  
Effects of a surrounding fluid on the free, axisymmetric vibrations of thin elastic spherical shells 9779
- Soo, S. L.**  
Direct energy conversion 1184
- Soong, T.-C.**  
Buckling of cylindrical shells with eccentric spiral-type stiffeners 7736
- Soop, M.**  
A method for calculating the minimum of a one-dimensional variational integral on an infinite interval leading to a Schrodinger-type eigenvalue problem 4849  
See also Schindler, K. 1279
- Sopka, J. J.**  
Mathematical basis for the plasma kinetic equations (BBGKY) 5587
- Sorensen, H. C.**  
A hydrodynamical analysis for reactor primary containment by energy absorption 7364
- Sorensen, N. E.**  
See Smeltzer, D. B. 1100
- Sorenson, H. W.**  
Recursive filtering for systems with small but non-negligible nonlinearities 5801
- Soroka, L.**  
An application of statistical procedures to quality control of concrete 6970
- Sorokin, N. A.**  
See Ivanov, V. A. 8970
- Sorsdal, S.**  
See Krokstad, A. 6519
- Sortais, H. C.**  
An optimum die profile for axisymmetric extrusion 5171
- Sosnin, O. V.**  
Creep of hardened materials 4958
- Sosnovskii, L. A.**  
See Kudryavtsev, I. V. 8640
- Sosonkin, V. L.**  
Calculating the dynamic characteristics of annular sealing clearances 2617
- Sotak, A. E.**  
See Cess, R. D. 3696
- Sotgia, G.**  
See Aschieri, F. 6245
- Sotter, J. G.**  
See Clayton, B. M. 4569
- Soubbaramayer**  
Laminar mass convection in a porous tube with suction through the wall 9971
- Souchet, R.**  
On the theory of Reissner on the bending of slabs 130
- Souders, S. W.**  
See Green, R. N. 1328
- Soulant, H.**  
Variable resonant vibration generator for experimental vibrational analysis of structures 6877
- Soullier, A.**  
Improving the boundary-layer profile in a diffuser 5357
- Soundalgekar, V. M.**  
On the flow of an electrically conducting, incompressible fluid near an accelerated plate in the presence of a parallel plate, under transverse magnetic field 2843  
Heat transfer in crossed-fields MHD Couette flow 6474  
On fluctuating flow of an elastico-viscous fluid past an infinite plate with variable suction 7922
- Souprunenko, V. A.**  
See Masoud, M. 9014
- Sousa, J. B.**  
For the measurement of thermal conductivity with great accuracy 1202
- South, P.**  
Research on reduction of wall effects in low speed wind tunnel 2741
- Southwood, D. J.**  
The hydromagnetic stability of the magnetospheric boundary 5576
- Southworth, H. L.**  
See Woodmansee, W. E. 6974
- Sovalov, I. G.**  
Influence of turbulent and vibroturbulent activation on the rheological properties of injection cements and grouts 2578
- Sovershenniy, V. D.**  
Turbulent boundary layer on the penetrable surface 6293
- Sovic, R. J.**  
A study of the axial velocities in an ammonia MPD thruster 9885
- Sovinc, I.**  
Driving stresses in open-end steel pipe piles 8591



- Sowerby, R.  
The diametral compression of circular rings by "point" loads 2349  
Plane strain drawing and extrusion of a rigid perfectly plastic material through concave dies 3306  
*See also* Johnson, W. 6982
- Sozou, C.  
Adiabatic transverse modes in a uniformly rotating fluid 8831
- Spadaccini, L. J.  
Supersonic combustion of propane 2015
- Spain, R. G.  
*See* Schwartz, H. S. 142
- Spalding, D. B.  
The spread of turbulent flames confined in ducts 3724
- Sparkes, D. W.  
A standard choked nozzle for absolute calibration of air flowmeters 4463
- Sparkes, S. R.  
*See* Krishna, P. 4270
- Sparks, J. W.  
*See* Tesar, D. 6197  
Tesar, D. 9269
- Sparling, L. G. M.  
*See* El-Kalay, A. K. E. H. A. 2464
- Sparrow, E. M.  
Flow and heat transfer in ducts of arbitrary shape with arbitrary thermal boundary conditions 1215  
Torsion of composite elastic bars of arbitrary cross section 3119  
Unsteady heat transfer in ducts with time-varying inlet temperature and participating walls 3664  
Deviations from classical free convection boundary-layer theory at low Prandtl numbers 7246  
*See also* Husar, R. B. 1975  
Torrance, K. E. 6409  
Yu, H. S. 8741
- Spataru, A.  
Study of water exchange in the basin entrance of fluvial harbors 7039
- Spee, B. M.  
On the stability of two-dimensional transonic flows 4369
- Speight, L. R.  
Control law optimization in simulated visual tracking of aircraft 7529
- Spence, D. A.  
Heat transfer to a quadratic shear profile 6389
- Spence, J.  
*See* Findlay, G. E. 1046
- Spencer, E.  
Stability of earth embankments 1717  
Effect of tension on stability of embankments 4202  
Circular and logarithmic spiral slip surfaces 6905
- Spencer, W. J.  
*See* Byrne, R. J. 947
- Spera, D. A.  
The calculation of elevated-temperature cyclic life considering low cycle fatigue and creep 8642
- Spero, D. M.  
Cross-stream instability in a plasma 3769
- Spetla, Z.  
*See* Kadlec, V. 6968
- Speyer, J. L.  
A neighboring optimum feedback control scheme based on estimated time-to-go with application to re-entry flight paths 7557
- Spickler, J. W.  
A servo-controlled pressure generator for physiological applications 4808
- Spiegel, S. L.  
On the existence and structure of inertial boundary currents in a stratified ocean 4758
- Spiers, R.  
Fretting fatigue failure in friction grip bolted joints 7837
- Spillers, W. R.  
Techniques for analysis of large structures 6976  
A cylindrically orthotropic elastic thick ring 7667
- Spillette, A. G.  
Two-dimensional method for predicting hot waterflood recovery behavior 9111
- Spilling, I.  
*See* Wadsworth, N. J. 3323
- Spivak, S. M.  
The behavior of fabrics in shear: Part 1, Instrumental method and the effect of test conditions 305  
The behavior of fabrics in shear: Part 2, Heat-set nylon monofil fabrics and a new dynamic method for the measurement of fabric loss properties in shear 306
- Spodick, D. H.  
Atraumatic measurement of the isometric relaxation period of the left ventricle 4804
- Spokes, G. N.  
*See* Benson, S. W. 6439
- Spooner, J. B.  
*See* Argyris, J. H. 5891  
Argyris, J. H. 7872
- Spooner, R. L.  
On the detection of a known signal in a non-Gaussian noise process 4840
- Sprague, C. H.  
A flexible sinusoidal response analyzer 3029
- Spreadborough, J.  
*See* Anderson, E. 6926
- Spreiter, J. R.  
Effect of neutral sheet currents on the shape and magnetic field of the magnetosphere tail 8136
- Springer, G. S.  
The effects of axial heat conduction on the freezing or melting of cylinders 8927  
*See also* Teagan, W. P. 429  
Havekotte, J. C. 9700
- Srinivas, R. A.  
*See* Deckkar, B. E. L. 2827
- Sprunger, E. V.  
*See* Tabakoff, W. 7091
- Spuckler, C. M.  
*See* Aydelott, J. C. 8039
- Spurlock, O. F.  
A trajectory code for maximizing the payload of multistage launch vehicles 1331  
*See also* Teren, F. 6499
- Squire, L. C.  
Calculated pressure distributions and shock shapes on conical wings with attached shock waves 1136
- Sreedhar, N.  
Stability of a system of linear differential equations 769
- Sreenath, A. V.  
Testing of engine crankcase oils 7456
- Sridhar, R.  
A general formulation of the milling process equation: Part 5, Contribution to machine tool chatter research 6085  
A stability algorithm for the general milling process: Part 7, Contribution to machine tool chatter research 6087  
*See also* Hohn, R. E. 6086
- Srinath, M. D.  
Stability of a class of nonlinear time-varying systems 2230  
Absolute stability of systems with multiple nonlinearities 8350
- Srinivas, R. A.  
*See* Deckker, B. E. L. 7299
- Srinivasachari, E.  
*See* Seshagiri Rao, T. 9068
- Srinivasan, A. V.  
Analysis of parallel damped dynamic vibration absorbers 9449
- Srinivasan, P.  
*See* Dasarthy, B. V. 9  
Dasarthy, B. V. 80  
Achyuta, Rao Bapat, V. 3220  
Achyuta, Rao Bapat, V. 3227  
Dasarthy, B. V. 3908  
Dasarthy, B. V. 3909  
Dasarthy, B. V. 3910  
Dasarthy, B. V. 5106  
Bapat, V. A. 6800  
Dasarthy, B. V. 6808  
Dasarthy, B. V. 7525  
Achyuta Rao Bapat, V. 9405
- Srinivasan, R. J.  
Coefficient of dynamic subgrade reaction 8594
- Srinivasan, R. S.  
*See* Sundara Raja Iyengar, K. T. 7711  
Sundara Raja Iyengar, K. T. 8469
- Srinivasan, S. K.  
Stochastic point processes: A phenomenological approach 3011
- Srinivasa Rao, B. N.  
*See* Kesava Rao, B. 4922
- Sriram, K. P.  
*See* Goldwyn, R. M. 65
- Strivastav, R. P.  
Dual and triple integral equations involving inverse Mellin transforms 3004

- Srivastava, K. M.  
Hydromagnetic oscillations of an incompressible cylinder 4599
- Srivastava, K. N.  
See Lowengrub, M. 1581  
Lowengrub, M. 7607
- Srivastava, M. P.  
See Bhatnagar, P. L. 9698
- Srivastava, P. N.  
Unsteady rotational motion of a viscoelastic liquid contained between two concentric spheres 6218
- Srivastava, R. S.  
Diffraction of blast waves for the oblique case 5344  
See also McConalogue, D. J. 9644
- Srivastava, U. N.  
Boundary layer flow past a circular cylinder embedded to a wedge 5384
- Srivastava, V.-K.  
Effects of varying loading conditions on the interior ballistics of a high/low pressure gun 9047
- Srivivasan, S.  
See Durvasula, S. 4130
- Srubshchik, L. S.  
Nonstiffness of spherical shells 1637
- Staats, H.  
See Seemann, H. J. 3317
- Stacey, C. M.  
Design problems and operational experience with hydrofoil craft 1416
- Stacey, W. M., Jr.  
Application of variational synthesis to the optimal control of a point reactor model 3992
- Stachowicz, B.  
On a contact problem for non-homogeneous elastic half-plane 1585
- Stadler, W.  
The axisymmetric response of a complete cylindrical shell to shock loads 6034
- Stadter, J. T.  
See Bazley, N. W. 186  
Rubinstein, N. 6014
- Stafford Smith, B.  
A linear method of analysis for double-plane cable-stayed girder bridges 332
- Stagg, J. J.  
See Hooke, C. J. 286
- Staicu, St.  
See Carafoli, E. 5322  
Carafoli, E. 9748
- Stainano, E. F.  
See Skoglund, V. J. 7107
- Stainback, P. C.  
Effect of unit Reynolds number, nose bluntness, angle of attack, and roughness on transition on a 5° half-angle cone at Mach 8 2666  
Derivation and tests of a constant Newtonian pressure gradient body 5396
- Stainthorp, F. P.  
The effect of co-current and counter-current air flow on the wave properties of falling liquid films 1905
- Stair, W. K.  
Effect of groove geometry on visco-seal performance 3425
- Stakyan, M. G.  
See Gasparyan, S. A. 4232
- Stalker, R. J.  
A driver gas contamination probe for shock tunnels 2743
- Stallard, J. M.  
Ultrasonic method for determining thermodynamic properties of liquids with results for mercury 7213
- Stallmeyer, J. E.  
Cumulative damage theories and application 9525
- Stammers, C. W.  
See Glaswell, G. M. L. 9457
- Stanculescu, G.  
Bending behavior of plain concrete 3160
- Stanescu, E.  
Laboratory methods and apparatus used in the study of construction materials for earth dams in the Socialist Republic of Romania 985
- Stangl, J. G.  
Theoretical analysis of spin characteristics and results for the VJ 101 C VTOL airplane 9896
- Stanisic, M. M.  
On the response of the plate to a multi-masses moving system 4008  
On the torsional vibration of an inhomogeneous anisotropic hollow cylinder 5994  
On the response of beams to an arbitrary number of concentrated moving masses 8533
- Staniszewski, B.  
Investigation of a caloroelectric plasma converter with concentric electrodes 8150
- Staniukovich, K. P.  
Spherical sound waves in Riemannian space 5775
- Stankewitsch, L.  
Measurement of rapidly varying gas temperatures and gas velocities in a two-stroke diesel engine 5473
- Stankiewicz, N.  
The ellipsoidal velocity distribution function 4355
- Stanley, P. E.  
See Butler, B. R. 2178
- Stanton, E. L.  
See Havner, K. S. 99  
Fox, R. L. 4258
- Stanton-Jones, R.  
International hovercraft conference 1968: The future development of hovercraft 7348
- Stanyukovich, K. P.  
Unsteady escape of gas in a constant gravity field 4389
- Starfield, A. M.  
Compression waves generated in rock by cylindrical explosive charges: A comparison between a computer model and field measurements 255
- Stariradeva, L.  
Stability of a symmetric gyrostat in a central Newtonian force field 1560
- Starkov, G. V.  
See Shevnin, A. D. 9881
- Staros, A.  
Northwestern University intermittent mechanical friction system (disk-type) 9169
- Starova, E. N.  
See Kunetsov, N. N. 598
- Starovoitenko, Zh. V.  
See Fleishman, N. P. 3183
- Starr, V. P.  
Physics of negative viscosity phenomena 6575
- Stassen, H. G.  
Random lateral motions of railway vehicles: A theoretical and experimental investigation of the interaction between track and vehicle 2280
- Stassi D'Alia, F.  
Flow and fracture of materials according to a new limiting condition of yielding 1608
- Stastnova, V.  
Periodic solutions of the first boundary value problem for a linear and weakly nonlinear heat equation 9809
- Statnikov, Yu. G.  
Streaming induced by finite amplitude sound 8168  
See also Semenova, N. G. 7379
- Staub, F. W.  
The void fraction in subcooled boiling: Prediction of the initial point of net vapor generation 1236  
Two-phase fluid modeling: The critical heat flux 7265
- Staugaitis, C. L.  
See Jellison, J. 1422
- Stavnitsev, L. R.  
Calculating the plastic deformations involved in soil consolidation by impact 6055
- Stawstrom, C.  
An improved depleted-zone theory of intergranular corrosion of 18-8 stainless steel 9526
- Staylor, W. F.  
See Ashby, G. C., Jr. 1348
- Stech, E. L.  
A review of restraint systems test methods 4806
- Stecher, F.  
Vibrations across the cylinder head gasket of i.c. engines 5111
- Steel, T. R.,  
Linearized theory of plane strain of a mixture of two solids 1590  
Linearized plane strain of a mixture of two elastic solids: Part 2 4924
- Steele, C. R.  
Pressure vessels with edge zone yielding 2544

- Steeple, H.  
See Rehowicz, M. 6386
- Steeves, E. C.  
Lateral vibration characteristics of a 1/40-scale dynamic model of Apollo-Saturn V launch vehicle 1342  
See also Adelman, H. M. 1341
- Stefaniak, J.  
Stress, displacement and temperature in a finite elastic body, taking into consideration thermomechanical coupling 8202  
A generalization of Galerkin's functions for asymmetric thermoelasticity 9077
- Stefanovskii, V. A.  
Theoretical analysis of the process of the retuning of conditions of working of a stage in an axial multistage compressor 1919
- Steffen, H. H.  
Theoretical and experimental investigation of the Prandtl-Meyer expansion with heat addition 4377
- Steffes, F. J.  
Determination of detonation wave velocities 2907
- Steiglitz, K.  
See Tretter, S. A. 3952  
Rogers, A. E. 4874  
Schumer, M. A. 4903
- Steijn, R. P.  
The sliding surface of polytetrafluorethylene: An investigation with the electron microscope 4775
- Stein, M.  
Some recent advances in the investigation of shell buckling 6787
- Stein, R. P.  
See Merriam, R. L. 3684  
Burchill, W. E. 4528
- Steinberg, M. S.  
Resonance scattering of sound by a small gaseous object of arbitrary form 672
- Steinberger, E. H.  
See Pruppacher, H. R. 3498
- Steinbrenner, H.  
Various special measuring methods for vehicles on the test track 1504
- Steiner, C. J. P.  
The creep rupture properties of pressure vessel steels: Part 3 4227
- Steiner, V.  
See Krchov, J. 307
- Steingroever, E.  
Free levitation of a fifty-pound body by ferromagnetic and diamagnetic forces 4797
- Steinhaus, J. F.  
See Oleson, N. L. 620
- Steinhilper, W.  
See Stephan, K. 6341
- Steinhoff, J.  
Analysis of equilateral triangular plates 7691
- Steinle, M. E.  
See Brown, R. S. 2828
- Steinmetz, G. G.  
See Wilson, J. W. 788
- Stelczer, K.  
The abrasion of bed load materials 7056
- Steller, K.  
Guide-rings of reversible hydraulic machines 4442
- Stelmach, J.  
See Zyczkowski, M. 3430
- Stelmashuk, V. N.  
Approximate technical theory of ideally rigid-plastic shells of rotation 5018
- Stelzer, C. F., Jr.  
See Hudson, W. R. 1625
- Stengle, G.  
A divergence theorem for Gaussian stochastic process expectations 9194
- Stenning, A. H.  
An analytical and experimental study of airlift pump performance 1163
- Stentz, R. H.  
See Slot, T. 1748
- Stepanchuk, V. F.  
Calculation of compression shocks at low pressure 5337
- Stepanov, A. E.  
Method of strains for flexible plates 9350  
Method of simulating shallow shells 9365
- Stepanov, B. M.  
See Ivanov, V. V. 5673
- Stepanov, S. G.  
See Surkin, R. G. 3268
- Stepanov, Yu. S.  
See Andriankin, E. I. 9479
- Stepanova, N. V.  
See Bukhovtsev, B. B. 8816
- Stepanyuk, N. M.  
An exact static axial solution of the Einstein equations 1565
- Stephan, E.  
Dimensioning of mechanisms with Wildhaber-Novikov gearing: Part 1, Fundamentals of gear geometry and kinematics 3420
- Stephan, K.  
Pressure pulsations in gas and hydraulic pipelines with isentropic flow and arbitrary closing history of valves 6341
- Stephens, D. G.  
See Leatherwood, J. D. 6673
- Stephenson, D.  
Prevention of vapor pocket collapse in a pumping line 3469
- Stephenson, L. P.  
See Middleton, E. 8656
- Stephenson, R. J.  
Traffic noise 4667
- Stephenson, W. B.  
See Cassanova, R. A. 3524
- Stepniewski, W. Z.  
International Congress on Subsonic Aeronautics 8012
- Stepnov, M. N.  
Use of the Prot method in the fatigue testing of light alloys 4233
- Sterbacek, Z.  
Liquid dispersion coefficients on perforated plates with downcomers 391
- Stern, M. E.  
Towards a generalization of "minimum free-energy" applicable to statistically steady turbulent motion 6303
- Stern, P.  
See Findley, W. N. 878
- Sternberg, E.  
Couple-stresses and singular stress concentrations in elastic solids 9300  
See also Muki, R. 82  
Bogy, D. B. 96  
Turteltaub, M. J. 6709  
Wheeler, L. T. 7601
- Sternberg, Y. M.  
Mutual interference of water wells 705
- Sterns, U. J.  
See Herbert, L. S. 8084
- Stetsyura, G. G.  
See Nisnevich, L. B. 6670
- Stevens, G. H.  
Frequency response of a forced-flow single-tube boiler with inserts and exit restriction 4549
- Stevens, L. K.  
Plastic design and trussed frames 7878
- Stevens, W. F.  
See Rafal, M. D. 2264
- Stevenson, C. L.  
Probability sizing of clay materials 4727
- Stevenson, D. C.  
See Fricke, F. R. 6506
- Stevenson, T. N.  
Some two-dimensional internal wave in a stratified fluid 4428
- Steverding, B.  
Plastic behavior of copper under impulsive heating 8667  
Surface temperature and heat transfer conditions in the ablation of shear thinning and shear thickening liquids 9840
- Stewart, A. D. G.  
Microtopography of surfaces eroded by ion bombardment 7858
- Stewart, D. A.  
Shock shapes and pressure distributions for large-angle pointed cones in helium at Mach numbers of 8 and 20 9678
- Stewart, L. G.  
See Harwood, W. D. 7863
- Stewart, R. E.  
Atmospheric diffusion of particulate matter released from an elevated continuous source 4768
- Stewartson, K.  
On one-dimensional unsteady flow at infinite Mach number 427  
On inviscid flow of a rotating fluid past an axially-symmetric body using Oseen's equations 2600

**Stewartson, K. (Continued)**

- On the initial structure of the interaction between wings and bodies at supersonic speeds 2697  
 On an integral equation 6617  
 A note on a source in a rotating liquid 7062  
 Pathological oscillations of a rotating fluid 9767
- Steyerl, A.**  
 Computer-aided study of the stability of parallel incompressible flows in a collinear magnetic field 7313
- Stickney, G. H.**  
 Flexure theory of multilayer orthotropic circular sandwich plates 2367
- Stingelin, R. W.**  
 See Taylor, J. I. 7203
- Stippes, M.**  
 Completeness of the Papkovitch potentials 7598  
 See also Chan, S.-K. 223  
 Weeks, R. 3147
- Stockburger, D.**  
 Useful dusts, their manufacture and technical processing: Part 2, Fundamentals of dust drying 8095
- Stockham, L. W.**  
 Radiative heat transfer from a cylindrical cloud of particles 4530
- Stockman, N. O.**  
 Theoretical analysis of flow in VTOL lift fan inlets without crossflow 6485
- Stockmann, V.**  
 See Noack, D. 8664
- Stoecker, W. F.**  
 See Wedekind, G. L. 560
- Stofan, A. J.**  
 See Szabo, S. V. 5616
- Stoffers, G.**  
 Investigation of the operation of airborne separation devices 8976
- Stoianov, N. V.**  
 On the stabilization of the steady state motion of a nonlinear control system in the critical case of a double zero root 8345
- Stojanovic, R.**  
 Dislocations in the generalized elastic Cosserat continuum 5907  
 On the general solution for torsion of polar elastic media 9307
- Stokes, V. K.**  
 Effects of couple stresses in fluids on hydromagnetic channel flows 2845
- Stolarik, J. D.**  
 The application of the image orthicon television system to rocket trajectory determination 9904
- Stoll, A. M.**  
 See Weaver, J. A. 9160
- Stone, D. J.**  
 Automatic evaluation of ionospheric current systems 9902
- Stone, H. L.**  
 Iterative solution of implicit approximations of multidimensional partial differential equations 6632
- Stone, H. W.**  
 The leading-edge effects on the laminar flat-plate boundary layer and the aerodynamic heating at Mach 10.4 7980
- Stoneking, C. E.**  
 See Marris, A. W. 858
- Storakers, B.**  
 Ductile creep failure under complex stress 886  
 Plastic and viscoplastic instability of a thin tube under internal pressure, torsion and axial tension 7652
- Storen, S.**  
 Analysis of spherically and cylindrically divergent stress pulses in linear viscoelastic solids 9476
- Storey, C.**  
 See Barnett, S. 2220
- Story, R. W.**  
 Forces and force ratios in grinding with coated abrasives 3307
- Stothard, J. N.**  
 See Roberts, H. E. 7517
- Stout, R. B.**  
 See Hodge, P. G., Jr. 4047
- Stout, R. D.**  
 See Hickerson, J. P. 5188
- Stowell, E. Z.**  
 The calculation of fatigue life in the presence of stress concentrations 7838
- Strachan, J. K.**  
 See Bokhari, S. M. H. 3835
- Straight, J. W.**  
 Solution to beam vibrations problems with mixed response-excitation input information 5992
- Strassacker, G.**  
 See Damian, K. 7521
- Strassemeyer, K. H.**  
 Methods of characteristics to calculate plane and axially symmetric hypersonic flow 5328
- Stratonovich, R. L.**  
 Optimal recognition algorithms 2276
- Strauss, A.**  
 See Jones, G. S. 3994
- Strauss, J. C.**  
 The SCi continuous system simulation language (CSSL) 2207
- Strauss, W. A.**  
 Investigation of the detonation of aluminum powder-oxygen mixtures 4649
- Strawbridge, D. R.**  
 Numerical solutions of the Navier-Stokes equations for axisymmetric flows 9651
- Streat, M.**  
 See Cloete, F. L. D. 693
- Street, P. J.**  
 A technique for determining drop-size distributions using liquid nitrogen 2135
- Streeter, V. L.**  
 Two- and three-dimensional fluid transients 8853
- Strehlow, R. A.**  
 Transverse wave structure in detonations 7295  
 See also Gilbert, R. B. 9914
- Streifer, W.**  
 Uniform asymptotic expansions for prolate spheroidal wave functions 4826
- Strejc, V.**  
 Synthesis of control systems with process computers 1523
- Strelbitskaya, A. I.**  
 Application of methods of theory of plasticity to the problems of flexure of rectangular plates 1628
- Strelkoff, T.**  
 One-dimensional equations of open-channel flow 9624
- Strelkov, L. A.**  
 A method of correction in mercury porometry: Exchange of experience 2959
- Stricklin, J. A.**  
 A rapidly converging triangular plate element 6763  
 Nonlinear analysis of shells of revolution by the matrix displacement method 6772
- Strieder, W. C.**  
 Knudsen flow through a porous medium 9967
- Strock, R. R.**  
 Stresses and deflection in a clamped circular plate with a wedge-shaped cross section under uniform pressure 6764
- Strodtmann, C. L.**  
 See Beck, J. V. 6582
- Stroganov, A. S.**  
 Analysis of plane plastic deformations of soils 1713
- Strom, S.**  
 See Krokstad, A. 6519
- Stroppel, A.**  
 States of stresses in stored granular material near a plane wall 7805
- Stroud, A. H.**  
 Integration formulas and orthogonal polynomials 7496
- Stroud, C. W.**  
 A study of the reaction-plane approximation in ablation analyses 572  
 See also Brewer, W. D. 2814
- Struck, W. G.**  
 Investigation of freely expanding spherical combustion waves using methods of high-speed photography 3738
- Struct, A. M. I.**  
 See Smith, K. V. H. 2684
- Strughold, H.**  
 See Bedwell, T. C., Jr. 9154
- Strunz, M.**  
 See Althaus, D. 453
- Strycek, O.**  
 A pump watercraft drive 492
- Stuart, I. M.**  
 The compression of yielding loops 8435



- Stubberud, A. R.  
See Kroy, W. H. 2224  
Seal, C. E. 3037  
Sorenson, H. W. 5801
- Stuff, R.  
See Oswatitsch, K. 6261
- Stundel, D.  
Step mechanisms for high switching frequencies 2561
- Stutz, P.  
Remarks on the plastic flow in the case of a linear tensorial function between stress and velocity of deformation 115  
See also Sawczuk, A. 5138
- Stuwing, D.  
Calculating the natural frequency of blade sets in axial turbo engines 6826
- Styrikovich, M. A.  
Problems in the development of designs of supercritical boilers 5510
- Styro, D. B.  
Investigation of radiative heat exchange in the spectral intervals of strong and weak absorption of water vapor 9127
- Su, C. C.  
See Ku, Y. H. 168
- Subba Rao, A. V.  
Mechanism of nucleate boiling 1238
- Subba Rao, B. K.  
Heat transfer from a disk with uniform wall heat flux rotating in air 8069
- Subba Rao, V.  
Surface waves in rotating liquids 8843  
See also Kasture, D. Y. 7959
- Subbotin, V. I.  
See Ivanovskii, M. N. 550  
Ivanovskii, M. N. 8936
- Subertova, S.  
The influence of acoustic waves on the positive column of a glow discharge with standing striations 2037
- Subrahmanyam, J. V.  
See Kameswara Sarma, P. 4514
- Subrahmanyam, S. V.  
Interferometric measurement of ultrasonic velocity in liquids: Effect of diffraction 9934
- Subramanian, G.  
See Murthy, P. N. 6169
- Subramanian, R.  
Rotatory vibration of a composite orthotropic circular cylinder 940  
Stress concentration around a small anisotropic spheroidal inclusion on the axis of a circular cylinder in torsion 3113  
Vibrations of a composite orthotropic cylinder 6837  
Transient temperature in a thick dielectric of spherical shape in an alternating current 7396
- Subramanya, K.  
See Rajaratnam, N. 394  
Rajaratnam, N. 1066
- Subtelny, J. D.  
See Worth, J. H. 10008
- Suckling, J. H.  
Streak interferometric measurements of transient displacements 5135
- Sud, Y. C.  
Experimental investigation of ignition characteristics of lean limiting burshane-air mixture 578  
Some experiences in the design and fabrication of combustion and injection pickup for solid injection C.I. engines from indigeneous sources 591
- Sudakova, N. I.  
See Kudryavtsev, E. P. 5139
- Sudan, R. N.  
Growing waves in a nongyrotropic plasma 4593
- Sudo, S.  
The mechanical behavior of soil and its state of stress 244
- Sueishi, T.  
Experimental estimation of detention in storm sewer system 7931
- Suenaga, Y.  
Fundamental study on reinforced concrete shear-wall structures: Experimental and theoretical study of strength and rigidity of two-directional structural walls subjected to combined stress, M, N, Q 7900
- Suezawa, Y.  
Double-notch creep rupture of 5 Cr-0.5 Mo steels 7857
- Suga, K.  
The stable longitudinal profiles of river beds 2589
- Sugai, K.  
Application of a new lifting surface theory to screw propeller 1166
- Sugie, N.  
Reducible linear time-varying control systems 3942
- Sugihara, R.  
Interaction between an electromagnetic wave, plasma waves, and an ion acoustic wave 3778
- Sugimoto, M.  
A study on plastic bending of an anisotropic plate 898
- Sugita, H.  
See Nakagawa, Y. 4715
- Sugiura, I.  
Adaptive optimizing control utilizing open loop type optimum-controller and the sensitivity coefficients 1547
- Sugiyama, K.  
Unsymmetrical vibration of circular diaphragm with concentric rigid part at the center 2400
- Suh, C. H.  
Synthesis of plane linkages with use of the displacement matrix 1763  
Design of space mechanisms for function generation 1767  
Design of space mechanisms for rigid body guidance 3428
- Suh, N. P.  
On stress pulse amplification ratio in truncated solid cones 6039
- Suhubi, E. S.  
Bending theory of microelastic bars 6714  
See also Ozbek, T. 4986
- Sujeer, V. N.  
Application of Runge-Kutta fourth order approximation method to the study of transient stability of a salient pole generator 1491
- Sukharev, M. G.  
Invariant solutions of equations describing the motion of fluids and gases in long pipes 4341
- Sukhikh, L. I.  
Determination of the optimum rounding of a right angle during torsion 4966
- Sukhovarov, V. F.  
Bauschinger effect in the case of the transition from rolling to flexure and its converse 8609
- Sullivan, E. M.  
See Zoby, E. V. 4373
- Sullivan, J. J.  
Evaluation of the computational errors of strapdown navigation systems 2076
- Sullivan, T. L.  
Effect of radius on bulging and fracture of through-cracked cylindrical pressure vessels at cryogenic temperatures 2480
- Sultan, M. A.  
A method of linearization for a class of nonlinear systems with random disturbances 1487
- Sultan, M. A. I.  
See Hearle, J. W. S. 144
- Sumbal, J.  
See Komora, J. 7031
- Summers, D. A.  
See Brook, N. 9499
- Sumner, G.  
A diametral extensometer for elevated temperature high strain fatigue 3371
- Sun, C. L.  
Nonlinear dynamic behavior of heated conical and cylindrical shells 909
- Sun, C.-T.  
Time-harmonic waves in a stratified medium propagating in the direction of the layering 236  
Continuum theory for a laminated medium 6894  
See also Sierakowski, R. L. 6532  
Valanis, K. C. 9467
- Sunakawa, M.  
Elastic stability of spherical shells subjected to external pressure 3209  
Axisymmetric buckling of shallow spherical shells under external pressure 7739
- Sunavala, P. D.  
Dynamics of the buoyant diffusion flame 2009
- Sunbury, R. D.  
Fountain, R. S. 6108

- Sundara Raja Iyengar, K. T.  
Determination of the orthotropic plate parameters of stiffened plates and grillages in free vibration 187  
Analysis of continuous beams: A three dimensional elasticity solution 2298  
A new approach for the prediction of true ultimate strength of concrete 3374  
On the end problem of cylinders 4931  
Analysis of orthotropic skew plates 7711  
Bending analysis of hyperbolic paraboloid shell 8469
- Sundelof, L.-O.  
On the accurate calculation of particle-size distributions in aerosols from impaction data 8218
- Sunderland, J. E.  
See Cowling, P. W. 4495  
Zerkle, R. D. 8079  
Dyer, D. F. 9839
- Sundheim, B. R.  
One-dimensional model of a fluid of charged particles 7315
- Sunyach, M.  
See Tailland, A. 7080  
Tailland, A. 7081
- Supple, W. J.  
On the change in buckle pattern in elastic structures 5962
- Surget, J.  
See Philbert, M. 3620
- Suris, P. L.  
Calculating the dynamics of safety valves for controlled steam turbine bleeds 4573
- Surkan, A. J.  
Solution of reaction and heat flow problems by nonlinear estimation 7208
- Surkin, R. G.  
Experimental investigation of the dynamic stability of spherical segments 3268
- Surovikhin, K. P.  
Integral invariants of two-dimensional rotational gas flows 1808
- Surry, D.  
See Dau, K. 8871
- Suryanarayan, E. R.  
Intrinsic equations governing the flow of a steady, incompressible, viscous fluid 6239  
Some intrinsic properties of steady parallel flows in magnetofluid dynamics 8151  
Generalized intrinsic form of the characteristic relations in the steady supersonic flow of a gas 9665
- Suryaprakasara, U.  
Hydromagnetic flow due to a rotating disk subjected to large suction 600
- Sussman, M. B.  
Approximate analysis of linearized inviscid relaxing gas flow 1854
- Sutcliffe, S.  
Wave propagation in an elastic plate with wavy boundaries 6883
- Suter, J. G.  
Energy consumption and abrasion during comminution in the cement industry 8209
- Suter, P.  
See Marchal, M. 8856
- Sutera, S. P.  
Large scale modeling of blood flow in the capillaries 7470  
The effect of external vorticity on stagnation-point heat transfer at high Prandtl number 8057
- Sutherland, A. J.  
Growth of spectral components in a wind-generated wave train 6330  
See also Barnett, T. P. 5688
- Sutherland, J. P.  
See Capes, C. E. 6397
- Sutherland, J. W.  
Optimal control laws for a class of aerodynamical systems 3083
- Sutherland, L. C.  
See Crocker, M. J. 2924
- Sutherland, R. J. M.  
See Plowman, J. M. 128
- Sutterlin, R.  
On the application of a viscoelastic-plastic model to the theory of crushers 4960
- Suttles, J. T.  
See Garrett, L. B. 9671
- Sutton, G. W.  
Molecular mixing lengths for turbulent wakes 1844  
Effect of chemical reaction fluctuations on turbulent wakes 4386  
Fluctuation intensity of passive species in a turbulent subsonic jet 6277  
Use of Langmuir probes for hypersonic turbulent wakes 9915
- Sutton, P.  
Design of a noise specification for process plant 9058
- Suvernev, V. G.  
Some questions of the oscillations of sandwich shells 194
- Suzuki, H.  
Ultrasonic method of flow measurement 2737  
On the errors of thermodynamic method for measuring efficiency of water turbines 7182  
Thermodynamic tests in Japan 8866
- Suzuki, K.  
See Sato, T. 3728
- Suzuki, M.  
Study of measuring small displacements with frequency modulation technique 218  
See also Sawada, T. 7123
- Suzuki, S.  
See Matsui, S. 5125
- Suzuki, S.-I.  
Measurements of solid viscosities and their effects on dynamic load factors 209  
Effects of solid viscosities on dynamic load factors of a ring subjected to impulsive loads 7766
- Suzuki, T.  
See Uchida, S. 3504
- Suzuki, Y.  
See Matsumoto, S. 2249
- Sved, G.  
Structural optimization under multiple loading 2529
- Svensson, N. L.  
See Williams, J. F. 7463
- Svensson, P.  
See Dahlquist, G. 8333
- Sverdllov, A. I.  
Investigation of moire methods for strip bracket plates with partial support 1740
- Svet, D. J.  
A form of distribution of the spectral density of temperature radiation energy 3648
- Svetlitskii, V. A.  
Determination of possible maximum reactions in dynamic systems subjected to the influence of excitations limited in modules 4010
- Svetozarova, G. I.  
Mathematical models of drying processes in a fluidized bed 8231
- Svidzinskii, A. V.  
The hydrodynamic equations in the theory of superconductivity 8038
- Svirezhev, Iu. M.  
On the theory of phugoid motions 4641
- Svistov, P. F.  
Certain results of a study of the physicochemical nature of atmospheric aerosols 9100
- Svoboda, M.  
Plane thermal stresses around holes under steady distribution of temperature 9939
- Svyatogorov, A. A.  
See Bunimovich, A. I. 481  
Bunimovich, A. I. 1922
- Swales, M. C.  
Optimization of tidal power generation 5689
- Swamy, M. N. S.  
See Bhattacharyya, B. B. 1477
- Swamy, N.  
A criterion of shear failure for reinforced concrete beams without web reinforcement 4264
- Swanson, C. J.  
Modification of elastic properties in structural analysis by force method 5216
- Swanson, S. R.  
Random load fatigue testing: State of the art survey 1016
- Swaroop, R.  
A simple technique for automatic computer editing of biodata 7473
- Swartman, R. K.  
Solar radiation estimates from common parameters 723
- Swartz, B. K.  
Explicit  $O(h^2)$  bounds on the eigenvalues of the half-L 3929
- Swartz, S. E.  
Buckling of folded-plate structures 9392

- Swarztrauber, P. N.  
See Weinman, J. A. 3690
- Swedlow, J. L.  
Character of the equations of elastoplastic flow in three independent variables 4048  
Initial comparisons between experiment and theory of the strain fields in a cracked copper plate 8629  
Elastoplastic cracked plates in plane strain 9518  
See also Yokobori, T. 6096
- Sweeney, T. E.  
Air-cushion vehicles: Their promise 9899
- Sweet, H. J.  
Bonding strain gages in small openings 1743
- Sweetman, R. H.  
Distribution pattern of cochlear combination tones 6598  
See also Dallos, P. 6596
- Swenson, E. V.  
Geometry of the complex characteristics in transonic flow 7093
- Swift, D. A.  
Optimum flow conditions for liquid coolants in superconducting power cables 6228
- Swift, G. W.  
See Lescarbourea, J. A. 1061
- Swigert, P.  
Compute: A time-sharing desk calculator program 3934
- Swindells, J. F.  
Precision measurement and calibration: Selected NBS papers on temperature 3647
- Swinnerton, B. R. G.  
Copper drag on commutators 3873
- Swinson, W. F.  
See David, J. B. 4709
- Swithenbank, J.  
Hypersonic air-breathing propulsion 7307
- Sworder, D. D.  
On the control of stochastic systems 847
- Syamala Rao, C.  
See Venkata Rao, C. 6398
- Sybers, H.  
See Popovic, P. 5740
- Sydenham, P. H.  
A potentiometric method for transducing large-scale position using tensioned flexible wires in trilateration 2250
- Symmons, W. R.  
See Blackburn, E. J. 9548
- Symonds, P. S.  
Plastic shear deformations in dynamic load problems 4172
- Symons, E. P.  
Liquid-vapor interface configurations in toroidal tanks during weightlessness 7359
- Syono, S.  
On frequency distributions of wind speed and direction in turbulent flow 6570
- Syratetdinov, T. K.  
See Degtyarev, G. L. 5832
- Syrovoi, V. A.  
Invariant solutions of the equations of a multicomponent charged-particle beam 2649
- Syverson, C. A.  
Research problems in atmosphere entry and landing for manned planetary missions 5619
- Szablewski, W.  
Turbulent parallel flow 8813
- Szabo, L.  
The kinematic description of seepage in the light of recent investigations 2957
- Szabo, S. V.  
Centaur launch vehicle propellant utilization system 5616
- Szabo, V.  
Determination of plane state of stress using sums of principal stresses found by tests under certain boundary conditions 87
- Szabo, Z. S.  
See Brown, C. B. 6988
- Szalai, J.  
Analysis of cylindrical fluid tanks subject to one-sided earth pressure 2371
- Szalai, K.  
Limit resistance of compressed reinforcement 6165
- Szamosvolgyi, O.  
Tooth form factor of internal gears 3417
- Szaniawski, A.  
Two parametrical forms of the self-similar transonic Guderley-Frankl solutions 5318  
The asymptotic structure of weak shock waves in flows over symmetrical bodies at Mach number unity 6274
- Szczeniowski, B.  
Method and equipment for measuring the thermal conductivity of insulating materials 1201  
Some complete solutions of transient heat conduction in solid spherical and cylindrical layers and in a plane 5475
- Szczepinski, W.  
Plastic straining of notched bars with intermediate thickness and small shoulder ratio 1602  
See also Dietrich, L. 2334
- Szechy, K.  
Deformations around and below driven and vibrated test tubes 4192
- Szefer, G.  
On a certain method of the potential theory for unbounded regions 1459  
A problem of a nonhomogeneous semi-infinite elastic body 4947  
See also Stachowicz, B. 1585
- Szekely, I.  
The logical study of the discrete speed variator with involute bevel gears 7018  
Kinematic investigation of three-dimensional mechanisms with the aid of transmission functions 9609
- Szekely, J.  
See Hills, A. W. D. 8098
- Szekeress, G.  
Kinematic geometry: An axiomatic system for Minkowski space-time 7588
- Szelagowski, F.  
A disk of the form of an eccentric circular ring subjected to a given load 2351  
State of stress induced by the decrease of temperature in an infinite disk with an elliptic hole 3818
- Szemplinska-Stupnicka, W.  
Higher harmonic oscillations in heteronomous nonlinear systems with one degree of freedom 6805
- Szilagi, L.  
Resonance measurement of the complex flexural modulus of viscoelastic materials coupled with elastic materials 1600
- Szilard, J.  
See Bihari, I. 8185
- Szmodits, K.  
Numerical solution of mixed boundary value problems in disk analysis 4016  
Vibrations of sprung bodies and rotating disks 6794
- Szoke, B.  
On the problem of engaging and disengaging disk clutches 342  
Planetary gear drives 1776  
The proper conduction of the flux of mechanical energy with special regard to the self-balanced movable clutch 6190
- Szolnoky, Cs.  
Continuous measurement under laboratory conditions of the humidity content of soil 984
- Szucs, L.  
A process for the dimensioning of the high efficiency plate fins of compact heat exchangers 2797
- Szyper, M.  
The deterministic (classical) methods of identification 810  
See also Krzyworzeka, P. 809

## T

- Tabadadze, Z. V.  
Oscillations of compound rods with concentrated masses in the case of dynamic loading 178
- Tabakoff, W.  
An analytical and experimental transonic performance of a clustered exhaust nozzle 7091
- Tabarrok, B.  
See Simpson, A. 4138
- Taccoen, L.  
A contribution to the study of turbulent heat diffusion in a smooth circular cylindrical tube 3667
- Tacina, R. R.  
Analysis of total-pressure loss and airflow distribution for annular gas turbine combustors 9855

- Tack, D. H.  
Correlation-detection arrays designed for directional noise fields 1353
- Taft, C. K.  
See McGlaughlin, D. W. 4884
- Taga, N.  
See Igarashi, S. 5220
- Tagiev, I. G.  
Method of solving problems of the elastic equilibrium of thin shells of variable rigidity 5015
- Taguet, G.  
See Kohn, S. 2002
- Tai, C. L.  
A new approach to the interaction problems of fluid-filled elastic membrane shells 7176
- Tailland, A.  
Jet adjacent to a wall 7080  
Study of a plane jet 7081
- Taira, S.  
A contribution to the improvement of the accuracy of X-ray stress measurement: On the measuring method of peak position and on the correction of Lorentz polarization and absorption factors 300  
Deformation and microscopic lattice strains in polycrystalline metals: Crystal plane dependence of the peak shift of X-Ray diffraction line in elastically and plastically anisotropic metals after tension 1023  
X-ray investigation on fatigue fracture of notched steel specimen: Investigation on fatigue process of quenched and tempered low-carbon steel specimen by means of X-ray microbeam diffraction technique 2497  
X-ray investigation on surface residual stress produced in fatigue process 5194  
Crystallographic study of yield condition of polycrystalline metals: Part 2, hcp metal 5904  
X-ray investigation on fatigue fracture of notched specimen: Investigation on fatigue process of cold-rolled or quench-aged low-carbon steel specimen by means of X-ray microbeam diffraction technique 6114  
Low cycle fatigue under multiaxial stresses: In the case of combined cyclic tension-compression and cyclic torsion out-of-phase at elevated temperature 6115  
Creep and creep fracture of a low carbon steel under combined tension and internal pressure 6728  
Creep rupture of internally pressurized cylinders at elevated temperatures 8631  
X-ray investigation on the strength of inhomogeneous metallic materials: Deformation behavior and X-ray elastic constants of cast iron 8660
- Tait, K. E.  
Nonlinear properties of discrete-continuous feedback control systems with signal dependent sampling: Part 1, A recapitulation of linearity conditions 804  
System constraints and location hypersurfaces in discrete-continuous systems 2238  
Stability properties of discrete-continuous feedback control systems with signal dependent sampling: Part 2, Stability concepts 5810  
Stability properties of discrete-continuous feedback control systems with signal dependent sampling: Part 1, A bibliographical survey 8347
- Taitel, Y.  
Shielding of radiation by screens and its similarity to a gray gas 1228  
Equilibrium temperatures in a boundary-layer flow over a flat plate of absorbing-emitting gas 6405
- Taits, B. A.  
State of the gear-measurement techniques in the USSR 3422
- Tajima, K.  
Some investigations of shock tube flow: On the propagation behavior of the initial shock front 1110
- Tajiri, M.  
Propagation of hydromagnetic waves in collisionless plasma: Part 2, Kinetic approach 1281
- Takach, G.  
Cable fatigue and contact stress 4299
- Takada, H.  
See Uchida, S. 6256
- Takada, J.  
See Miyoshi, H. 9996
- Takada, Y.  
Vibration of the fuel assembly of a marine reactor 5093
- Takagi, F.  
A study on mechanism of vertical infiltration 3838
- Takagi, H.  
Wind tunnel investigations of the twin-propeller deflected slipstream STOL airplane model 6316
- Takahashi, H.  
See Takeyama, H. 3191  
Haldeman, C. W. 4604
- Takahashi, S. K.  
Photoelastic analysis of undersea structures 7843
- Takahashi, Y.  
Mode oriented design viewpoint for linear, lumped-parameter multivariable control systems 3959  
Multivariable control system design in the modal domain 3960  
See also Yore, E. E. 1495
- Takai, R.  
See Nakaya, C. 1824
- Takakura, T.  
Predicting air temperatures in the glasshouse: Part 2 553
- Takami, A.  
See Oka, S. 354  
Oka, S. 6368
- Takanashi, A.  
See Ogawa, K. 4297
- Takanashi, K.  
See Tanaka, H. 920  
Tanaka, H. 5980
- Takano, H.  
Computer control of a plate mill 3967
- Takasu, T.  
Exact, unified function-theoretical solution of the nonlinear fundamental differential equation for the velocity potential of compressible fluids 6264
- Takeda, T.  
Solid precipitation in supercooled cloud: Part 1, Freezing of a supercooled water drop due to the collision of ice crystals 2971
- Takeda, Y.  
See Tsukagoshi, I. 7903
- Takei, K.  
See Kato, H. 974
- Takematsu, M.  
Stability of a laminar flow along a flexible boundary: Part 1 6299
- Takemura, T.  
Rolling and sliding friction of polymeric materials 8277
- Takeno, T.  
Experimental studies on driving mechanism of the high frequency combustion oscillation in a premixed gas rocket 3750
- Takeuchi, E.  
The mechanisms of wear of cast iron in dry sliding 8279
- Takeyama, H.  
Logarithmic strains as integrated strain increments 2292  
Analytical investigation on the plastic deformation of rotating disks by strain incremental theory 3191  
Wear of cutting tools 4783
- Takeyama, N.  
A generalization of thermodynamics of irreversible processes on the basis of theory of Brownian movement 7206
- Takhar, H. S.  
Free convection from a flat plate 4519  
Thermal convection near a partly insulated vertical flat plate 9819
- Takhtuev, S. P.  
See Karbe, Yu. V. 8873
- Takserman-Krozer, R.  
Hydrodynamic properties of dilute polymer solutions in a general velocity field 2580  
Rheological behavior of dilute polymer solutions in a general velocity field 9621
- Talbot, K.  
See Tomlinson, W. J. 5899
- Talbot, R. F.  
See Power, G. 7309
- Tall, L.  
See Ueda, Y. 4100  
Nishino, F. 9388
- Tallmadge, J. A.  
See Hildebrand, R. E. 7029
- Talypov, G. B.  
On the theory of plasticity taking into account Bauschinger effect 4050



- Tam, K. K.**  
On the asymptotic solution of the Orr-Sommerfeld equation by the method of multiple-scales 6327
- Tamaki, T.**  
The influence of a pair of edge dislocations in slip planes perpendicular to each other on the work-hardening and strain-aging 8443
- Tamamura, S.**  
*See* Konishi, I. 4271
- Tamao, T.**  
A numerical study of particle acceleration in the magnetosphere 7331
- Tamate, O.**  
Flexure of an infinite plate with a partially bonded circular insert of dissimilar material 3186
- Tamuly Phukan, A. L.**  
*See* Morgenstern, N. R. 8600
- Tamura, A.**  
On the vibrations caused by ball diameter differences in a ball bearing 7774  
*See also* Taniguchi, O. 2980  
Ono, K. 6855  
Ono, K. 7460
- Tamura, H.**  
Vibration of rotor due to ball bearing: Part 3, Spring property of bearing containing a large number of balls 9442
- Tamura, K.**  
*See* Nakayama, K. 2469
- Tamura, T.**  
*See* Miyano, Y. 9531
- Tamuzh, V. P.**  
*See* Malmeister, A. K. 3137
- Tan, C. P.**  
Dynamic response of a horizontally curved bridge 3402  
Response of horizontally curved bridge to moving load 4135
- Tan, C. W.**  
Heat transfer in aligned-field magnetohydrodynamic flow past a flat plate 2856  
Mass transfer in aligned-field magnetohydrodynamic flow past a flat plate 6475
- Tan, S. B.**  
*See* Al-Dhahir, Z. A. 8232
- Tanabashi, R.**  
The minimum weight design of a class of tall multistory frames subjected to large lateral forces: Part 1 3394
- Tanaka, H.**  
Study on the limitation of width-thickness ratio in plastic hinges 920  
Study on the width to thickness ratios of compression elements in plastic hinges: Part 6 5980  
*See also* Hanamura, Y. 2887  
Syono, S. 6570
- Tanaka, K.**  
Wear of polytetrafluoroethylene: Part 1, Fundamental behavior 2164  
*See also* Taira, S. 2497  
Taira, S. 6114  
Hiraoka, M. 7228
- Tanaka, T.**  
Effect of the superimposed stress of high frequency on fatigue strength 1731  
Effect of the superimposed stress of higher frequency on the fatigue strength of an aluminum alloy 5191  
*See also* Tanaka, Y. 6923  
Mabuchi, I. 8948
- Tanaka, Y.**  
Frictional properties of abrasive grains 6923
- Tandon, P. N.**  
Flow of a viscoelastic fluid in the entrance region of a straight channel 2572
- Taneda, S.**  
Waving motions of flags 1317  
The skin-friction drag on flat-plates coated with flexible material 3496  
Determination of the drag on vibrating circular cylinders 5308
- Tang, J. Y. T.**  
Finite-magnetic-Reynolds number effects in magnetogasdynamic flows 6456
- Tang, S.**  
Wave propagation in initially-stressed elastic solids 224  
Elastic stability of thick circular plates under three-dimensional states of stress 3206  
Elastic stability of outstanding flanges under combined bending and compression 4097  
*See also* Kerr, A. D. 5038
- Tang, S.-C.**  
Dynamic response of elastic plates on viscoelastic foundations to moving loads 7693
- Tang, T. M.**  
Dynamics of synchronous-precessing turborotors with particular reference to balancing: Part 2, Application 5997
- Tani, T.**  
Local two-dimensional approximation for axisymmetric transonic flow 5320
- Tanibayashi, H.**  
*See* Taniguchi, K. 499
- Taniguchi, H.**  
Temperature distributions of radiant gas calculated by Monte Carlo method 1983  
The radiative heat transfer of gas in a three dimensional system calculated by Monte Carlo method 8921
- Taniguchi, K.**  
Investigation into the propeller cavitation in oblique flow 499
- Taniguchi, O.**  
Experimental study of whirl instability for externally pressurized air journal bearings 2980  
*See also* Sawada, T. 7123  
Shimizu, H. 8338  
Shimizu, H. 9153
- Tanimoto, K.**  
Study on settlement associated with liquefaction of sand subjected to impact loads 6057
- Tanimura, S.**  
*See* Nishiyama, U. 9552
- Tanishita, I.**  
New equation of state for steam up to 800°C and 1000 bar 8890
- Taniuti, T.**  
Reductive perturbation method in nonlinear wave propagation, Part 1 3575
- Taniwaki, C.**  
*See* Koizumi, T. 6537
- Tannas, L. E., Jr.**  
Re-entry guidance through closed-form equations 648
- Tanner, M.**  
Method for the calculation of the wake characteristics of blunt bodies for incompressible nonperiodic wake 6257
- Tannert, E.**  
Influence of the sliding surface contours on the sliding behavior under the conditions of mixed friction at sliding indicator friction measurement 5717
- Tapley, B. D.**  
Persistent solar influenced libration point motion 645  
*See also* Lastman, G. J. 5830
- Tappin, G.**  
*See* Davidge, R. W. 3330  
Davidge, R. W. 5185
- Tarakanov, R. Z.**  
A polyasthenospheric model of the upper mantle of the Earth designed according to seismologic data 5683
- Tarasenko, V. P.**  
Extremum system of control of the motion of an object on a given course 9258
- Tarasev, G. S.**  
One variant of the theory of finite plane deformations 4923
- Tarasov, F. F.**  
Some special features of the re-expansion of a supersonic flow in a cylindrical pipe 7974
- Tardif, L.**  
Density distribution in turbulent and laminar wakes 3525
- Tarifa, C. S.**  
Flame propagation along the interface between a gas and a reacting medium 5529
- Tarnopolskii, Yu. Ya.**  
Calculating the universal characteristic of an axial compressor on a digital computer 7186
- Tarnowski, A.**  
Variations in hydrodynamic loads acting on gates of inlets to water turbines of low head 8023
- Tarshis, L. A.**  
Heat transfer by simultaneous conduction and radiation for two absorbing media in intimate contact 9812
- Tartakovskii, V. I.**  
Capacitive analog transducer of large displacements 8674

- Tarzmanov, A. A.**  
Experimental investigation of the thermal conductivity of vapors of normal saturated hydrocarbons at temperatures up to 450°C 8892
- Tasi, J.**  
An analysis of vibration experiments that approximate simple shear conditions 1690
- Tasnadi, Cs.**  
*See Szucs, L.* 2797
- Tasso, H.**  
Qualitative stabilizing and destabilizing effects in the macroscopic theory 612
- Tassoul, J. L.**  
*See Cretin, M.* 5577
- Tatarskiy, V. I.**  
The accuracy achievable in determining atmospheric density from satellite phase and refraction-angle measurement 9990
- Tate, E.**  
*See Zauderer, B.* 2874
- Tatsumoto, E.**  
A device for measuring the linear compressibility of solids 1029
- Taub, P. A.**  
The interaction of a fiber tangle with an airflow 1087  
Hypersonic, low-density sphere and cone drag correlations 2897
- Tauchert, T. R.**  
Heat generation in a viscoelastic solid 111  
The linear theory of micropolar thermoelasticity 2930  
Thermal stresses at spherical inclusions in uniform heat flow 8197
- Taufel, J.**  
Factorial method for a boundary-value problem of a linear system of differential equations 8314  
Factorial method for an eigenvalue problem of a linear system of differential equations 8315  
Factorial method for a boundary-value problem of a nonlinear system of differential equations 8316
- Taulbee, D. B.**  
Boundary layer on the wall of a curved converging channel 5381
- Taunton, M. A.**  
*See Harpur, N. F.* 9591
- Tauscher, H.**  
Fatigue strength and notch sensitivity of induction-hardened heat-treatable steels 3340
- Taussig, R. T.**  
*See Chu, C. K.* 8146
- Tautu, P.**  
*See Iosifescu, M.* 1465
- Tavkhelidze, D. S.**  
Rhomboids in mechanical linkages and their properties 2563  
Question of the synthesis of four-bar three-dimensional mechanisms with one translatory pair 8715
- Taya, T.**  
A photoelastic study on the stresses in haunches or corner angle parts of structures: Part 3, Other isoclinics left untouched in Part 2 (continued from Part 2) 2504  
A photoelastic study on the stresses in haunches or corner angle parts of structures: Part 4, Principal stress trajectories 2505  
A photoelastic study on the stresses in haunches or corner angle parts of structures: Part 5, Isochromatics, isopachics and principal stress intensities of corner angle parts testing models of rigid frame 4241  
A photoelastic study on the stresses in haunches or corner angle parts of structures: Part 6, Isochromatics, isopachics, principal stress intensities, fiber stress intensities and deflection curves of the supporting parts testing models of Girder Bridge 9594
- Taylor, A. B.**  
A uniformly valid asymptotic solution of Reynolds's equation: The finite journal bearing with small clearance 8291
- Taylor, A. S.**  
The formulation of an influence-coefficient method for determining static aeroelastic effects, and its application to a slender aircraft in symmetric flight at M=2.2 9024  
Aircraft loading actions problems 9743
- Taylor, J.**  
Kinetic heating of aircraft structures 9824
- Taylor, J. B.**  
Plasma containment and stability theory 610  
*See also Gibson, A. Kent, A.* 2865 8142
- Taylor, J. E.**  
Optimum design of a vibrating bar with specified minimum cross section 181  
Effect of shear deformation on the boundary layer of buckled circular plates 2392  
Optimal design of columns 3391
- Taylor, J. I.**  
Infrared imaging for water resources studies 7203
- Taylor, K. V.**  
A technique for analyzing stress data from ships in service 7907  
*See also Bell, A. O.* 2158
- Taylor, P. T.**  
*See Osgerby, C.* 2512
- Taylor, R. E.**  
*See Ho, C. Y.* 9802
- Taylor R. L.**  
Darcy flow solutions with a free surface 702  
On a variational theorem for incompressible and nearly incompressible orthotropic elasticity 2316  
Measurements of vibration-vibration coupling in gas mixtures 3530
- Taylor, R. W.**  
An aluminum splash generated by impact of a detonation wave 3814
- Tchamran, A.**  
A new derivation of the maximum principle 7558
- Tchervonenkis, A. Ya.**  
*See Vapnik, V. N.* 9264
- Teagan, W. P.**  
Heat-transfer and density-distribution measurements between parallel plates in the transition regime 429
- Teasel, R. C.**  
Ignition systems and spark plug requirements; Part 1, Characteristics of new ignition systems to improve engine performance 2819
- Teearu, V. A.**  
*See Parts, R. R.* 2060
- Teer, D. G.**  
*See Arnell, R. D.* 3872
- Tehyurkin, V. M.**  
Response to a sinusoidal input action of a valve controlled actuating mechanism with inertial mass loading and compressibility of fluid 2247
- Teisseyre, M.**  
*See Sasiadek, M.* 2134
- Tejchman, A.**  
About the influence of frictional forces acting along the side surface of a pile on the bearing capacity of its point (base) 7810  
Model tests on the influence of the skin friction on the point resistance of foundation piles 9485
- Telles, A. S.**  
Similarity type of solutions of the turbulent boundary layer equations for momentum and energy: Part 1, An analysis of some existing solutions 3543
- Temkin, S.**  
Nonlinear gas oscillations in a resonant tube 4431  
Large-amplitude transverse instability in rocket motors 5551
- Tempea, I.**  
*See Manolescu, N. I. Manolescu, N. I.* 1789 2555
- Tempest, W.**  
*See McRobert, H.* 1448
- Templeman, J. J.**  
*See Porter, K. E. Porter, K. E.* 9968 9969
- Tene, Y.**  
Deformation of asymmetrically loaded, symmetrically prestressed orthotropic shells of revolution 2375
- Teng, T. L.**  
A two-dimensional ultrasonic model study of compressional and shear-wave diffraction patterns produced by a circular cavity 2433  
Reflection and transmission from a plane layered core-mantle boundary 6556
- Tennekes, H.**  
Outline of a second-order theory of turbulent pipe flow 4419
- Tennison, M. A.**  
*See Thompson, D. O.* 1709

- Tennyson, R. C.**  
The effects of unreinforced circular cutouts on the buckling of circular cylindrical shells under axial compression 5969
- Teodorescu, P. P.**  
On the effect of concentrated loads in planes asymmetric elasticity 4022  
On the action of concentrated loads in the case of a Cosserat continuum 5862
- Teodorescu-Tintea, C.**  
On a new functional principle in the theory of gas turbines based on the Coanda effect: The turbine fitted with depressive blades 2727
- Teodosiu, C.**  
Contributions to the continuum theory of dislocations and initial stresses: Part 2 2305  
Contributions to the continuum theory of dislocations and initial stresses: Part 3 2306  
Contributions to the continuum theory of dislocations and initial stresses: Part 1 5906
- Tepley, N.**  
*See* Dooley, J. W. 2112
- Teplakov, D. I.**  
*See* Zakhidov, R. A. 3688  
*Aparisi, R. R.* 9131
- Terada, M.**  
*See* Ito, I. 5164
- Terasawa, M.**  
Studies on the fatigue fracture of tuffrided steel: On the behaviors of residual stresses 6954
- Terazawa, K.**  
Elastic-plastic buckling of plates using the finite element method: Part 1, Elastic-plastic buckling of rectangular plates under compression 3207
- Terebushko, O. I.**  
Effect of the position of the ribs on the magnitude of the critical load of a cylindrical reinforced shell 7742
- Teregulov, I. G.**  
*See* Danilov, V. I. 9360
- Teren, F.**  
Optimal three-dimensional launch vehicle trajectories with attitude and attitude rate constraints 6499  
*See also* Spurlock, O. F. 1331
- Terenetskii, L. N.**  
Experimental investigations of horizontal vibratory impact jacking of tubes 4194
- Terentev, E. D.**  
*See* Ryzhov, O. S. 7158
- Ter-Minassiants, S. M.**  
The diffraction accompanying the regular reflection of a plane obliquely impinging shock wave from the walls of an obtuse wedge 8858
- Ternan, J. G.**  
The control of discrete random processes 44
- Terpstra, J.**  
*See* Jannot, M. 8809
- Terry, C.**  
Self-supporting carbon resistance thermometers for use at low temperatures 2766
- Terry, C. T.**  
A viscoelastic model of the human spine subjected to  $+g_z$  accelerations 9999
- Tesar, D.**  
The generalized concept of four multiply separated positions in coplanar motion 3089  
The generalized concept of three multiply separated positions in coplanar motion 4305  
The generalized concept of five multiply separated positions in coplanar motion 6197  
Conditions for symmetry of multiply separated positions in coplanar motion 9269
- Teshirogi, N.**  
Effect of hot-surface on combustion of injection fuels 2818
- Teslenko, A. A.**  
*See* Lamper, R. E. 2409
- Test, F. L.**  
Laminar flow heat transfer and fluid flow for liquids with temperature-dependent viscosity 8905
- Teters, G. A.**  
*See* Malmesteier, A. K. 3137
- Tevzadze, G. A.**  
Integration of the differential equations with respect to the motion of a point in the three-body problem 2072
- Thacher, H. C., Jr.**  
*See* Cody, W. J. 9211
- Thailer, H. J.**  
*See* Cheng, D. H. 4062
- Thakur, D. N.**  
Some aspects of rock pressure modelling on equivalent materials 8605
- Thaler, G. J.**  
Parameter plane methods for the study of the frequency response of linear time-invariant systems 3050  
*See also* Han, K. W. 8341
- Tharby, R. D.**  
*See* Grevett, S. P. 5545
- 't Hart, H. H.**  
*See* Geleedst, M. 5694
- Thathachar, M. A. L.**  
*See* Srinath, M. D. 2230  
*Srinath, M. D.* 8350
- Thau, S. A.**  
Wave function expansions and perturbation method for the diffraction of elastic waves by a parabolic cylinder 7789
- Theocaris, P. S.**  
Optical nodal-pattern analysis 216  
Moire patterns formed by inclined gratings 3365  
Theory of spatial moire fringes 5205  
Radial gratings as moire gages 6132
- Thermann, K.**  
*See* Lehmann, T. 1601
- Thiel, H.**  
*See* Zellerer, E. 7000
- Thirriot, C.**  
Solitary wave in prismatic channels with varying profiles 469  
Transitory flow after the discharge opening in a long conduit 1156  
Water hammer in conduits with multiple characteristics and difference equations 1157  
The possibility and limit of degeneration of a mathematical surge wave model into a differential system 2591  
*See also* Escande, L. 475  
*Guevel, P.* 7937  
*Guyon, G.* 8228
- Thodos, G.**  
*See* Petrovic, L. J. 1996  
*Petrovic, L. J.* 1997  
*Roy, D.* 6373  
*Wilkins, G. S.* 9102
- Thollot, P. A.**  
*See* Albers, J. A. 5615
- Thom, A. S.**  
Thermodynamic testing of turbines and pumps 9793
- Thomann, H.**  
Measurement of heat transfer with an infrared camera 1246  
Effect of streamwise wall curvature on heat transfer in a turbulent boundary layer 3542  
Heat transfer in a turbulent boundary layer with a pressure gradient normal to the flow 3668
- Thomas, A. G.**  
Tear, crack growth and fatigue of rubber 8627
- Thomas, D. G.**  
Enhancement of film condensation rate on vertical tubes by longitudinal fins 7272
- Thomas, D. P.**  
Torsional oscillations of an elastic half-space 925  
A note on the torsional oscillations of an elastic half-space 6037
- Thomas, E. V.**  
Vibration transmission methods for foundation structures 6847  
Design of a damped machinery foundation for high-shock loading 6859
- Thomas, F.**  
*See* Quast, A. 9897
- Thomas, H. W.**  
A probe capillary viscometer 5450
- Thomas, J.**  
Systematic investigation of the high-lift characteristics of a wind tunnel model with various leading-edge and trailing-edge flaps 8826  
*See also* Carnegie, W. 1670
- Thomas, J. H.**  
Random vibrations of thin elastic plates 7777
- Thomas, J. W.**  
A simple method for measuring the average charge on a monodisperse aerosol 7412
- Thomas, K. S.**  
*See* Daehler, M. 8122

- Thomas, L. M.  
See Hodgson, V. R. 3890  
Hodgson, V. R. 7467
- Thomas, P. M.  
See Gabaudan, J. 1915
- Thomas, T. Y.  
Collapse of thick hollow cylinders by external pressure 1603  
Theory of the physical characteristics of tensile fracture under pressure 1729  
Stress-strain relations for crystals containing plastic deformation 2340  
Tensile strength of cubic crystals under pressure 4977  
On Bridgeman's observational relationship between the ratio  $a/R$  and the natural strain in tensile tests on steel cylinders 4983  
Velocity of dislocations in crystals 8440
- Thomason, P. F.  
The free surface ductility of uniaxial compression specimens with longitudinal surface defects 6736  
Tensile plastic instability and ductile fracture criteria in uniaxial compression tests 7829  
The use of pure aluminum as an analog for the history of plastic flow, in studies of ductile fracture criteria in steel compression specimens 8437
- Thome, E. A.  
See Chawla, J. M. 384
- Thomer, G.  
Methods and recent results of radiography and ultra-rapid cine-radiography 3816
- Thomere, R.  
See Giraud, A. 2956
- Thompson, A. G.  
See Thaler, G. J. 3050
- Thompson, B. G. J.  
A new two-parameter family of mean velocity profiles for incompressible turbulent boundary layers on smooth walls 2656
- Thompson, B. W.  
Secondary flow in a Hele-Shaw cell 1091  
See also Stewartson, K. 427
- Thompson, D. O.  
Reflections of harmonics generated by finite-amplitude waves 1709
- Thompson, E. R.  
Asymptotic non-Newtonian boundary-layer flow with suction 5398  
High Prandtl number boundary layers with mass injection 9713
- Thompson, E. V.  
Secondary processes of poly (methyl methacrylate) and their activation energies as determined by shear tensile creep compliance measurements 881
- Thompson, H. D.  
See Hoffmap, J. D. 5352
- Thompson, H. E.  
Clinical application of diagnostic ultrasound in obstetrics and gynecology 5737
- Thompson, J. B.  
See Harris, C. L. 3866
- Thompson, J. H.  
See Rogers, P. 3196
- Thompson, J. J.  
Axisymmetric thermal response problems for a spherical fuel element with time dependent heat transfer coefficients 9085
- Thompson, J. L.  
Some existence theorems for the traction boundary value problem of linearized elastostatics 9314
- Thompson, J. M. T.  
The nonlinear perturbation analysis of discrete structural systems 4254  
A general theory for the branching analysis of discrete structural systems 9384  
The branching analysis of perfect and imperfect discrete structural systems 9385
- Thompson, K. W.  
See Eftimiu, C. 1557
- Thompson, M. R.  
Lime-treated soils for pavement construction 8599
- Thompson, M. W.  
See Stewart, A. D. G. 7858
- Thompson, N. E.  
A note on the difficulties of measuring the thermal conductivity of concrete 7223
- Thompson, O. E.  
See Darkow, G. L. 5696
- Thompson, P. O.  
See Cummings, W. C. 8177
- Thomsen, E. G.  
See Lauterbach, R. 726  
Shabaik, A. H. 2459  
Negroni, F. 4974
- Thomsen, J. S.  
Example of an isothermal shock wave 4375
- Thomson, A.  
See Boynton, F. P. 1980
- Thomson, K. C.  
See Gangi, A. F. 4756
- Thomson, W. T.  
See Pestel, E. C. 9268
- Thorndike, N. S. C.  
See Brownscombe, J. L. 8210
- Thornhill, C. K.  
A new special solution to the complete problem of the internal ballistics of guns 2097
- Thornton, B. S.  
Damping loss in a cascade of fluttering phased aerofoils 3596
- Thornton, J. A.  
See Seemann, G. R. 2898
- Thorpe, S. A.  
On standing internal gravity waves of finite amplitude 3578  
A method of producing a shear flow in a stratified fluid 4360  
On the shape of progressive internal waves 8840
- Thorsen, R.  
Friction and heat transfer characteristics in turbulent swirl flow subjected to large transverse temperature gradients 3666
- Thum, H.  
Design and mode of operation of a test rig for radial friction bearings subjected to dynamic stress 745
- Thunell, B.  
On the chip thickness in a frame saw 3311
- Thurber, W. C.  
A fuel cell power plant for a deep diving submarine 520
- Thurgood, D. A.  
Stress distribution in a rotating disk 915
- Thurstone, F. L.  
Holographic imaging with ultrasound 8659
- Tichopad, V.  
Measurements at steady flight conditions on the E-33 experimental aircraft with blowing 1124
- Tickner, A. S.  
See White, D. J. 3363
- Tickner, E. G.  
A theory for the static elastic behavior of blood vessels 753
- Tieman, W. W.  
See Inger, G. R. 7140
- Tien, C.  
Thermal instability of a horizontal layer of water near 4°C 1976
- Tien, C. L.  
See Wang, L. S. 555  
Masson, B. 2602
- Tien, R. H.  
The unidimensional solidification of a binary eutectic system with a time-dependent surface temperature 1233
- Tijdeman, H.  
Remarks on the frequency response of pneumatic lines 9776
- Tikhonov, A. N.  
Nonlinear effect of the formation of a self-sustaining high-temperature conducting gas layer in nonstationary magnetohydrodynamic processes 5575
- Tikhonravov, M. K.  
Ten years of Soviet space research 2081  
Principles of the theory of flight and elements of the designing of artificial Earth satellites 2084
- Tillett, J. P. K.  
On the laminar flow in a free jet of liquid at high Reynolds numbers 2614
- Timanovskaya, R. G.  
Measurement of the radiative heat influx in the atmospheric ground layer 4766
- Timchenko, A. A.  
Structural synthesis of system controlling movement of body in space 5253
- Timlake, W. P.  
See Barnard, A. C. L. 1440
- Timman, R.  
Optimization theory for ordinary differential equations 59



- Timmer, H. G.  
 An approximate solution for the flow of a fluid through a porous solid 9104
- Timmins, A. R.  
 Time required for an adequate thermal-vacuum test of flight model spacecraft 5618
- Timofeev, A. V.  
 Evaluation of transfer coefficients in a turbulent plasma 7319
- Timofei, Fl.  
 See Maruta, Al. 4334
- Timur, A.  
 Velocity of compressional waves in porous media at permafrost temperatures 5150
- Ting, L.  
 Asymptotic solutions of wakes and boundary layers 1094
- Ting, T. C. T.  
 Contact problems in the linear theory of viscoelasticity 2320  
 See also Schultz, A. B. 238  
 Clifton, R. J. 8566
- Tinney, E. R.  
 See Soliman, M. M. 8740
- Tipper, C. F. H.  
 Oxidation and combustion reviews: Vol. 2 3721
- Tironi, G.  
 See Cercignani, C. 5366
- Tiroschi, I.  
 Digital control of motor speed ratio 3059
- Tirumalesa, D.  
 Nozzle flows with coupled vibrational and dissociational nonequilibrium 7111
- Tishchenko, V. V.  
 See Ivanov, P. S. 8587
- Tison, L. J.  
 Sedimentation and erosion at the mouths of tidal rivers: Part 2 3471  
 Sedimentation and erosion at the mouths of tidal rivers: Part 1 7940
- Titov, V. B.  
 On the structure of the bottom friction layer near a flat shore 1398
- Titov, V. M.  
 Speeding up of solid particles by cumulative explosion 8211
- Titova, N. S.  
 See Titov, V. M. 8211
- Tiu, C.  
 Geometric parameters for some flow channels 8731  
 See also Kozicki, W. 8221
- Tiwari, G. R.  
 Effect of couple-stresses on the distribution of stresses along a crack 6712
- Tiwari, S. N.  
 See Cess, R. D. 3696  
 Cess, R. D. 8074
- Tkachenko, A. I.  
 Possible scheme of an inertial navigation system for the determination of the parameters of motion of a flexible object 2075
- Tkachev, O. F.  
 See Limberg, E. A. 8861
- Tkaczuk, H.  
 Tensile properties of human lumbar longitudinal ligaments 7465
- Tklich, V. S.  
 Flow of a fluid of finite conductivity past a profile without breakaway: Steady problem of gasodynamics: Application of the Chaplygin-Sedov hodograph method 2031  
 See also Saltanov, N. V. 8773  
 9874
- Tkhanbang, N.  
 On the controllability of quasi-linear systems 6660
- Toakley, A. R.  
 Some computational aspects of optimum rigid-plastic design 5224
- Toba, K.  
 Effect of gas-surface interaction on sound propagation in highly rarefied gases 3537
- Tobak, M.  
 Aerodynamics of bodies of revolution in coning motion 6318
- Tobias, C. W.  
 See Cheh, H. Y. 699
- Tobias, S. A.  
 See Das, M. K. 2468  
 Duffill, A. W. 6082
- Tobolsky, A. V.  
 Viscosity as a function of shear rate 1795  
 Damped torsional oscillator model for polymer molecules 2325  
 A molecular theory for viscoelastic behavior of amorphous polymers 4046
- Tochacek, M.  
 The optimum design of a simply supported plate girder prestressed by a straight tie-rod in elastoplastic range 6176
- Toda, S.  
 See Hayashi, I. 8519
- Todd, A. C.  
 See Scarlett, B. 3286
- Todd, L.  
 Magnetohydrodynamic flow along cylindrical pipes under nonuniform transverse magnetic fields 3758
- Todeschini, B.  
 On relativistic gas dynamics of irrotational flows 1099
- Todo, I.  
 Optimum control based on an evaluation function including the initial investment 3978
- Toebes, G. H.  
 See Protos, A. 5438
- Toei, R.  
 Mass transfer through a rarefied gas between two concentric spheres 6280
- Toffaleti, F. B.  
 Definitive computations of sand discharge in rivers 7055
- Togino, K.  
 See Honda, T. 826
- Tokar, E. N.  
 Possible methods for the orientation of a space vehicle with respect to a rotating coordinate system 6502
- Tokarenko, V. M.  
 Stability of a cylindrical shell with arbitrary axisymmetric flexures in the case of axial compression 7744
- Tokarev, V. E.  
 Outflow of fluid from a container, with funnel formation 8744
- Tokarev, V. P.  
 See Karlashov, A. V. 1012
- Tokarev, V. V.  
 See Avramchenko, R. F. 2079
- Toktomyshiev, S. Zh.  
 See Soloukhin, R. I. 2099
- Tokuoka, T.  
 Acoustical birefringence of ultrasonic waves in deformed isotropic elastic materials 2500  
 Elastic wave propagation and acoustical birefringence in stressed crystals 8575
- Tolkachev, V. M.  
 See Grigoliuk, E. I. 1638
- Tolle, G. C.  
 See Rylander, H. G. 4799
- Tolokonnikov, L. A.  
 Experimental verification of the equation of plastic flow in an anisotropic body 8449  
 See also Gordon, V. A. 2308  
 Tarasev, G. S. 4923
- Tolstogonov, A. A.  
 Synthesis of an optimum system with restrictions on the phase coordinate 1540
- Toma, V.  
 See Savulescu, St. N. 9724
- Tomas, J.  
 See Plander, I. 5259  
 Markus, L. 7023
- Tomasini, A.  
 See Moreau, C. 2764
- Tomich, J. F.  
 See Garrett, R. L. 5325
- Tomlinson, W. J.  
 On the relation between hardness and the flow curve of metals 5899
- Tomokiyo, A.  
 Determination of thermal diffusivity by the temperature wave method 1245
- Tondl, A.  
 A method for investigating the stability of steady-state vibrations in nonlinear systems 3252  
 On the problem of self-excited vibrations of rotors supported in externally pressurized gas lubricated journal bearings 185  
 Analysis of forced oscillations of a system with periodically varying coefficients 9459
- Tondon, P. K.  
 Calculation of thermal conductivity of polar-nonpolar gas mixtures 3638
- Tong, L. S.  
 Boundary-layer analysis of the flow boiling crisis 1989  
 An evaluation of the departure from

- Tong, L. S. (Continued)**  
 nucleate boiling in bundles of reactor fuel rods 4535  
 Core cooling in a hypothetical loss of coolant accident: Estimate of heat transfer in core meltdown 8081
- Tong, P.**  
 Liquid motion in a circular cylindrical container with a flexible bottom 4433  
 Exact solution of certain problems by finite-element method 7610  
 An assumed stress hybrid finite element method for an incompressible and near-incompressible material 9207
- Tonndorf, J.**  
*See* Khanna, S. M. 7474
- Toomre, J.**  
*See* Moffatt, H. K. 1288
- Toong, T. Y.**  
*See* Kelly, J. R. 4596
- Toor, J. S.**  
 A numerical experiment of radiant heat interchange by the Monte Carlo method 2791
- Topakoglu, H. C.**  
*See* Ozisik, M. N. 3660
- Topolev, V. P.**  
*See* Pechuk, V. I. 8657
- Toprac, A. A.**  
 The effect of welding sequence on residual stresses in welded H-shapes 9615
- Torbunov, S. S.**  
 Approximate solution of the problem of the supersonic efflux of gas from a plane nozzle in the case of a calculated regime 8785  
*See also* Nazarov, G. I. 9668
- Torda, T. P.**  
 Analysis of entrainment and flow augmentation for Coanda-type nozzles 8753
- Torii, H.**  
*See* Niimi, H. 4602
- Torikai, K.**  
 Coefficient of heat transfer in pool boiling 1988
- Torok, D. F.**  
*See* Schmidt, F. W. 4541
- Torralbo, A. M.**  
*See* Sanchez Tarifa, C. 5529
- Torrance, K. E.**  
 Directional emittance of an electric nonconductor as a function of surface roughness and wavelength 6409  
 Numerical study of natural convection in an enclosure with localized heating from below: Creeping flow to the onset of laminar instability 7234  
 Experiments on natural convection in enclosures with localized heating from below 8908
- Torrence, M. G.**  
*See* Eggers, J. M. 9693
- Torvik, P. J.**  
 Response of an elastic plate to a cyclic longitudinal force 5080
- Tosaka, T.**  
*See* Yamamoto, T. 6600
- Toth, L.**  
 Distribution of stresses acting on the roll surface in strip rolling 8612
- Toth, M.**  
 Electric transducers for nonelectric input signals 2254
- Tou, J. T.**  
*See* Yeh, H.-H. 8363
- Toupin, R. A.**  
 Dislocated and oriented media 9301  
*See also* Noll, W. 6747
- Towfigh, K.**  
*See* Johnson, R. C. 2551
- Towill, D. R.**  
 Direct evaluation of sensitivity relationships using the coefficient plane 34
- Towne, D. H.**  
 Pulse shapes of spherical waves reflected and refracted at a plane interface separating two homogeneous fluids 6340
- Townsend, D. R.**  
 An investigation of turbulence characteristics in a river model of complex cross section 2598
- Townsin, R. L.**  
 Viscous drag from a wake survey: Measurements in the wake of a "Lucy Ashton" model 9143
- Toye, C. R.**  
 Introduction to computer-aided reliability data analysis 3936
- Toyokura, T.**  
 Studies on back-flow mechanism of turbomachines: Part 1, Back-flow mechanism to the suction side of axial-flow impeller blades 489
- Toyooka, S.**  
*See* Tanaka, K. 2164
- Tozawa, Y.**  
 Anisotropy with respect to Vickers hardness and plastic deformation resistance in cold rolled sheet metals 6079
- Trakhtengerts, M. S.**  
*See* Vukalovich, M. P. 4494
- Trammell, G. J.**  
 A study of frost formed on a flat plate held at sub-freezing temperatures 1987
- Trapanese, G.**  
 Experimental determination of heat and mass transfer coefficients in frosted pipes 6425  
 Calculation of finned surfaces thermal performance through air cooling with dehumidifying 7245  
*See also* Comini, G. 5507
- Trass, O.**  
*See* Barton, H. J. 9841
- Trauboth, H.**  
 A method for the numerical computation of convolution integrals for the digital simulation of control systems 2201  
 Digital simulation of general control systems 3032
- Traupel, W.**  
 Thermal turbomachines: Control, behavior under partial load, strength, temperature problems, blade vibrations, dynamic problems of rotors, Vol. 2, 2nd revised and enlarged edition 7183
- Travis, F. W.**  
 An investigation into kinetic forming 8614  
*See also* Poynton, W. A. 2472  
 Johnson, W. 5131  
 Carrell, J. 6052  
 Johnson, W. 6912
- Trayser, D. A.**  
 A 50-watt portable generator employing a solar powered Stirling engine 721
- Treadgold, D.**  
 Aerodynamic characteristics at  $M = 4.3$  of monoplane, triform and cruciform slender delta wing bodies with all-moving tail control surfaces 8820
- Trebbles, W. J. G.**  
 Low-speed wind-tunnel tests on a 1/6th scale model of an air-cushion-vehicle (Britten-Norman cushioncraft C.C.2) 641
- Trebes, D. M.**  
*See* McCarthy, J. R. 9818
- Treloar, L. R. G.**  
*See* Spivak, S. M. 306
- Trentacoste, N.**  
 Some remarks on three-dimensional wakes and jets 4384  
 Further experimental results for three-dimensional free jets 7077
- Tretter, S. A.**  
 Power-spectrum identification in terms of rational models 3952
- Tretyakov, P. G.**  
 Determination of the coefficient of heat transfer in turbines from measurement data 3740
- Tretyakov, Yu. M.**  
*See* Serov, E. P. 4517
- Treve, Y. M.**  
 On the nonlinear behavior of a pulsed MHD converter 9017
- Trexler, C. A.**  
*See* Weidner, J. P. 5324
- Trezek, G. J.**  
 Axial pressure correlation for accelerating particulate pipe flow 3825  
 Analytical determination of cylindrical source temperature fields and their relation to thermal diffusivity of brain tissue 5734
- Trifunac, M. D.**  
*See* Housner, G. W. 707
- Trillo, R. L.**  
 Design problems of hovercraft 4627
- Tripathi, R. C.**  
 Measurement of ultrasonic wave velocities in polycrystalline specimens of carbon steels by total reflection technique 9933
- Tripathi, R. S.**  
 Small-disturbance flow with two nonequilibrium processes over a wavy wall 425  
 On nonequilibrium flow inside a wavy cylinder 9696

- Trivunac, J.**  
Simplified form of the fundamental equations of internal ballistics for systems with partial overflow of gases formed during combustion and for systems with compound powder charges 9048
- Troesch, B. A.**  
Fluid motion in a shallow trapezoidal container 5432
- Trofimov, V. V.**  
See Vasilev, D. M. 301  
Alfutov, N. A. 5056
- Troitskii, V. A.**  
On the synthesis of optimal dampers 2270  
Optimal regimes of motion of multi-stage rockets 7351  
Variational problems of the optimization of control processes in systems described by ordinary differential equations 8377
- Tronkhan, A. M.**  
See Derevianko, N. F. 4424
- Troshchenko, V. T.**  
See Sidnev, V. I. 9554
- Troskolanski, A. T.**  
See Golinski, J. A. 8783
- Trout, A. M.**  
See Butze, H. F. 6444
- Trowbridge, E. A.**  
See Chadwick, P. 960
- Troyankin, Yu. V.**  
See Baluev, E. D. 6319
- Troyanovskii, B. M.**  
Designing condensing steam turbines with Baumann stages 8024  
A study of flow in a sharply divergent annular turbine blade row 9849
- Trubman, S. V.**  
See Ryabchinskii, N. I. 1424
- Truchasson, C.**  
See Astre, P. 9306
- Truckenbrodt, E.**  
Velocity regions in hypersonic flow of an ideal gas 7978  
The basic knowledge about the drag on a wing 9758
- Trumpler, P. R.**  
See Tang, T. M. 5997
- Tsagareli, Z. V.**  
Experimental investigation of the pressure of a cohesionless mass on a retaining wall with a back inclined toward the backfill 4206
- Tsai, S. W.**  
See Schultz, A. B. 9551
- Tsakonas, S.**  
Unsteady propeller lifting-surface theory with finite number of chordwise modes 4450
- Tsamkirani-Georganopoulou, A.**  
Helicoidally symmetrical stress in cylindrical shells 8474
- Tsao, C.**  
See Ching, A. 3358
- Tsao, S.**  
Numerical solutions of transients in pneumatic networks: Transmission-line calculations 8854
- Tsarkov, E. F.**  
See Khizhnyak, V. N. 8559
- Tsederberg, N. V.**  
See Ivanova, Z. A. 3641
- Tseitlin, A. I.**  
Longitudinal oscillations of a rod with a concentrated mass at the end 1666
- Tsen, L. F.**  
On a three-dimensional compressible boundary layer with heat transfer 2661  
Thermal regime of the homogeneous turbulent boundary layer with blowing 3553  
Distribution of the convection coefficient on a cone placed obliquely in a supersonic flow 7095  
Streamlines at the wall of a circular cone placed obliquely in a supersonic flow 7098
- Tsepilevich, V. G.**  
General solution of a transonic flow of gas in a magnetic field parallel to the velocity of motion 7968
- Tsibarov, V. A.**  
Finding the first moments of the distribution functions of a slightly rarefied gas 8791
- Tsiklis, D. S.**  
Measuring the compressibility of gases by the displacement method: Nitrogen compressibility at pressures up to 10,000 atm and temperatures to 400° 5466
- Tsin, M. R.**  
See Aronova, N. R. 2875
- Titelauri, N. N.**  
See Samuylov, Ye. V. 521
- Tsoi, P. V.**  
A method of solving the problem of internal convective heat transfer 8068  
Thermodynamics of irreversible processes and derivation of a system of differential equations for molecular transfer 8097
- Tsoi, V. P.**  
Investigation of a deformable structure on an elastic foundation 5086
- Tsokos, C. P.**  
See Lakshmikantham, V. 4862  
Lakshmikantham, V. 9237
- Tsuboi, A.**  
Error analysis on various electrical analogous solutions for one-, two- and three-dimensional heat-conduction partial differential equations 5790
- Tsuchida, M.**  
See Naemura, A. 6733
- Tsuchiya, K.**  
A satellite meteorological study of evaporation and cloud formation over the Western Pacific under the influence of the winter monsoon 7431
- Tsui, E. Y. W.**  
Stresses in shells of revolution 7696
- Tsui, J. B. Y.**  
See Hendricks, C. D. 3829
- Tsui, T.-Y.**  
Wave propagation in a finite length bar with a variable cross section 9469
- Tsuji, I.**  
Elastoplastic stresses and deformations in mild-steel plates subjected to thermal cycles 6541  
Transient and residual stresses due to butt-welding of mild steel plates 7921
- Tsuji, M.**  
See Nakagawa, T. 6949
- Tsukagoshi, I.**  
Experimental analysis of gridwork plate roof 7847  
Practical design of light knock-down composite slabs 7903
- Tsukamoto, S.**  
See Sawaragi, Y. 9259
- Tsuwa, H.**  
See Aketa, Y. 9318
- Tsuya, Y.**  
The effect of substrate materials on the solid lubrication by molybdenum disulphide 6581
- Tsvirkun, A. D.**  
See Abramov, A. Kh. 3995
- Tsybizov, Yu. I.**  
Calculation of complex regions of supersonic flow 6268
- Tsykunov, F. A.**  
See Fradlin, B. N. 2372
- Tsyppkin, Ya. Z.**  
See Propoi, A. I. 5822  
Propoi, A. I. 6678
- Tsytovich, V. N.**  
Nonlinear wave interaction in a plasma in a strong magnetic field 9003  
See also Makhankov, V. G. 1282  
Makhankov, V. G. 9877
- Tuba, I. S.**  
A perturbation theory of antiplane elastic-plastic deformations 8408
- Tubielewicz-Witkowska, H.**  
The evolution of water waves under the influence of a change in depth: Experimental aspects 1895
- Tuck, E. O.**  
Streamlines and pressure distribution on arbitrary ship hulls at zero Froude number 1406  
Sinkage and trim in shallow water of finite width 1412
- Tucker, H. J.**  
The distortion of turbulence by irrotational plane strain 4421
- Tucker, M. O.**  
The plane boundary in anisotropic elasticity 5874
- Tucker, W.**  
Some statistical aspects of the estimation of seismic travel times 5676
- Tuel, W. G., Jr.**  
Computer algorithm for spectral factorization of rational matrices 5779
- Tufeu, R.**  
Measurement of the thermal conductivity of some liquids 5512

- Tuler, F. R.  
A criterion for the time dependence of dynamic fracture 8632
- Tulin, L. G.  
Simplified description of creep surface for a Portland cement mortar 3134  
*See also* Gerstle, K. H. 6981
- Tull, H. G., III  
Three-dimensional kinematic synthesis 4296
- Tullis, J. P.  
Reducing cavitation in valves 8870
- Tulloch, H. A.  
*See* Olson, M. D. 7690
- Tung, D. H. H.  
Analysis of cables as equivalent two-force members 5908
- Tung, J. S.-T.  
*See* Fairfax, J. P. 2210
- Tunstall, M. J.  
On the effect of a sharp bend in a fully developed turbulent pipe-flow 7956
- Tuplin, W. A.  
Tip interference in internal gears 6191
- Turabi, D. A.  
Sheet-pile analysis by distribution theory 5157  
Distribution of earth pressure on sheet-pile walls 7818
- Turbatu, S.  
The perturbation velocity potential for oscillating rectangular wing 6278
- Turchin, I. A.  
*See* Brdlik, P. M. 3680
- Turcotte, D. L.  
The structure and propagation of ionizing wave fronts 5566
- Turkin, N. G.  
Investigation of high-order normal modes in plates of constant cross section 4169
- Turner, A. K.  
*See* Bokhari, S. M. H. 3835
- Turner, D. N.  
Hertzian stress cracks in beryllia and glass 4218
- Turner, G. A.  
A method of finding simultaneously the values of the heat transfer coefficient, the dispersion coefficient, and the thermal conductivity of the packing in a packed bed of spheres: Part 1, Mathematical analysis 2133
- Turner, J. E.  
Buoyancy bending moment on a ship in waves 2545
- Turner, J. S.  
The influence of molecular diffusivity on turbulent entrainment across a density interface 3554  
The behavior of a stable salinity gradient heated from below 7950  
*See also* Bretherton, F. P. 4345
- Turner, K. J.  
Measurements of pressure fluctuations and skin friction on the upper surface of a slender wing at lift ( $M = 0.8$  to  $2.0$ ) 2695
- Turner, M. J. B.  
*See* Swinnerton, B. R. G. 3873
- Turpin, J. L.  
Prediction of pressure drop for two-phase, two-component concurrent flow in packed beds 3841
- Turpin, P.-Y.  
Photometric measurement of light diffused by ultrafine aerosols 697
- Turteltaub, M. J.  
On concentrated loads and Green's functions 6709
- Turton, J. S.  
The effects of pressure and acceleration on the pool boiling of water and Arcton 11 7268
- Turubarov, V. I.  
*See* Dianov, D. B. 1378
- Tusupov, M. T.  
Existence of a solution of the second fundamental doubly periodic problem of elasticity theory 872  
*See also* Erzhano, Zh. S. 9287
- Tutan, I.  
*See* Constantinescu, Al. 6908
- Tutida, M.  
*See* Naemura, A. 5649
- Tutova, E. G.  
Heat exchange in multistage plant 6420
- Tutter, M.  
*See* Simonen, T. C. 2880
- Tutunaru, D.  
Mechanisms for determining the sequence of integral powers of a line segment 1787
- Tuvaev, V. A.  
*See* Bodner, V. A. 2080
- Tuvriktsyan, Zh. A.  
*See* Kocharyan, N. M. 3138
- Tuzhilkin, Yu. I.  
*See* Vasilev, N. A. 2109
- Tyavlovskii, M. D.  
*See* Konavalov, E. G. 2516
- Tychowski, F.  
Pure compressive stresses determined by the least squares method 2514
- Tyldesley, J. R.  
The prediction of the transport properties of a turbulent fluid 7143
- Tyler, B. J.  
Numerical calculations of the critical conditions in thermal explosion theory with reactant consumption 2830  
*See also* Ashmore, P. G. 6433
- Tynes, W. O.  
Investigation of resistance of preplaced aggregate concrete to freezing and thawing 1751
- Tyntarev, E. M.  
Computation of irradiation factors and angle factors, using a digital computer 8918
- Tyshkevich, V. A.  
Structural synthesis and classification of plane closed kinematic linkages with rotary and translatory pairs 347
- See also* Sergeev, P. V. 1784
- Tyson, H. N.  
Kinematics 4001
- Tyutekin, V. V.  
Reflection of flexural waves from an intermediate rod of variable thickness 220  
Internal flexural impedances and their application to problems of flexural wave propagation in non-uniform rods 6027  
Calculation of the resonance frequencies of flexurally vibrating non-uniform rods by the impedance method 8182
- Tzafestas, S. G.  
Optimal filtering, smoothing and prediction in linear distributed-parameter systems 6685  
Optimal control of a class of linear stochastic distributed parameter systems 6686
- Tzou, K. T. S.  
Determination of the viscous drag of a ship model 9137  
*See also* Landweber, L. 5700

## U

- Ubbelohde, A. R.  
*See* Munday, G. 3726  
Munday, G. 3727
- Ubell, K.  
*See* Szabo, L. 2957
- Uberall, H.  
*See* Doolittle, R. D. 675
- Uchida, H.  
Heat- and mass-transfer for dehumidifying of counter-flow transverse finned tubes 5518
- Uchida, M.  
Velocity of shock waves in crossed electromagnetic fields 4588
- Uchida, N.  
Direct measurement of photoelastic coefficients by ultrasonic light diffraction technique 9536
- Uchida, S.  
On a similar solution for a turbulent half-jet along a curved streamline 3504  
On a similar solution of laminar half jet along a curved streamline 6256  
*See also* Matsumiya, K. 3559
- Uchida, T.  
*See* Inoue, N. 2881
- Uchiyama, J. T.  
Buffet response measurements of a seven percent aeroelastically scaled model of various Titan III configurations 7338
- Uchiyama, S.  
*See* Tai, C. L. 7176
- Uchiyama, Y.  
*See* Tanaka, K. 2164  
Teshirogi, N. 2818
- Udeschini, P.  
Hamiltonian formalism in Einsteinian gravitation: Geometrical aspect 8391



- Ueda, T.  
On upward flow of gas-liquid mixtures in vertical tubes: Part 1, Experiment and analysis of the flow state; Part 2, Consideration of frictional pressure drop and void fraction; Part 3, Heat transfer results and analysis 7951
- Ueda, Y.  
Inelastic buckling of plates with residual stresses 4100  
See also Terazawa, K. 3207
- Uematsu, M.  
See Tanishita, I. 8890
- Uetz, H.  
Influence of atmospheric moisture on gliding wear of metallic materials 4779  
See also Wellinger, K. 1425
- Ufliand, Ia. S.  
See Belova, N. A. 2304  
Rukhovets, A. N. 4944  
Kuzmin, Iu. N. 6722
- Ugarte, C. P.  
See Dean, D. L. 7891
- Ugincius, P.  
See Doolittle, R. D. 675
- Ugodchikov, A. G.  
Solution of two-dimensional problems of the theory of elasticity with the aid of analytic functions 9289
- Ugorskii, A. E.  
Estimation of the stress concentration and long-term static strength of T-shaped roots of turbine blades 9792
- Ugural, A. C.  
Buckling of composite cylindrical shells under pure bending 160
- Uhlig, K.  
Calculating modern heavy-duty transmission belts with regard to specific material properties 2548
- Uhrig, R.  
Static analysis of thin walled shell structures with the aid of stiffness matrices 8472
- Ukhanov, E. V.  
See Filippov, O. K. 3701
- Ukhovskii, M. R.  
Axisymmetric flows of ideal and viscous fluids filling the whole space 6243
- Ulanov, G. M.  
See Nikitin, A. K. 5812
- Ulken, R.  
See Alvermann, W. 5530
- Ulrich, H.  
Technology of mechanical processing, numerical evaluation and design 9960
- Ulyanov, A. F.  
Experimental study of the critical heat flow during forced motion of fluids under conditions of weightlessness 8916  
Experimental study of heat transfer during boiling in conduits during weightlessness 8933
- Ulyanov, G. K.  
See Turkin, N. G. 4169
- Umanskii, Ya. S.  
See Kaibyshev, O. A. 892
- Umarov, G. Ya.  
Investigation of the surface shape of paraboloidal mirrors made by the rotation method 5289
- Umeno, M.  
Deformation behavior of aluminum macrocrystals in the grain boundary region 6749
- Umeza, K.  
On the flow properties of the disperse systems 1799
- Umnov, N. V.  
See Artobolevskii, I. I. 4301  
Artobolevskii, I. I. 8723
- Unbehauen, H.  
On load dependence of the stability and control quality in interconnected temperature control for the live steam of a drum boiler 8359
- Ungar, E. E.  
Vibration distributions in multipanel structures: Comparison of measurements with statistical energy predictions 2415
- Unny, T. E.  
See Lemieux, P. F. 4312
- Untiedt, J.  
A model of the equatorial electrojet involving meridional currents 4769
- Unz, H.  
On the analogy between linear isotropic plasma theory and classical elasticity 2217
- Upadhyaya, K. S.  
See Ram, R. 9870
- Upit, G. P.  
Cohesion of juvenile surfaces of plastic metals 5712
- Urakov, V. F.  
The temperature effect of plastic deformation in the cutting of metals 9504
- Ursek, D. C.  
Investigation of two-phase hydrogen flow in pump inlet line 7952
- Urbano, C.  
The effect of damping on the dynamic stability of nonconservative systems 3248
- Uribe, S.  
See Durelli, A. J. 871
- Urick, R. J.  
Principles of underwater sound for engineers 677  
Observations of fluctuation of transmitted sound in shallow water 9065
- Ursell, F.  
The expansion of water-wave potentials at great distances 3574
- Urtiew, P. A.  
Transverse flame-shock interactions in an explosive gas 581  
Detonative ignition induced by shock merging 5528
- Usami, K.  
See Murakami, A. 7718
- Usami, T.  
Yield patterns in structural steel members: Photoelastic coating study 8652
- Uscinski, B. J.  
The multiple scattering of waves in irregular media 5771
- Ushakov, B. N.  
See Sverdlov, A. I. 1740
- Ushakov, I. A.  
Determination of the magnetic moment of a magnetized gyroscope 76
- Ushakov, S. G.  
Designing manifolds for uniform distribution of dust-laden gas flow to different branches 5303
- Ushijima, M.  
See Ohtaka, K. 2412
- Usmanov, A. G.  
See Gaidarov, Sh. A. 563
- Usov, A. L.  
Investigation of contact heat transfer at floor surfaces 4506
- Usry, J. W.  
Performance of a towed, 48-inch-diameter (121.92-cm) ballute decelerator tested in free flight at Mach numbers from 4.2 to 0.4 6323
- Ustimenko, B. P.  
Calculation of free turbulent very twisted jets 5309  
Turbulent structure of rotating flows 9659
- Ustinov, Iu. A.  
See Poliakov, N. A. 4078
- Ustinov, M. D.  
Some exact solutions of the equations of plane steady adiabatic motion of an ideal gas 2620
- Utley, W. A.  
The use of absorbent material in double-leaf wall constructions: Single leaf transmission loss at low frequencies 7374  
7387
- Uvarov, A. Ya.  
See Ronzin, V. D. 9791

V

- Vadalov, F. V.**  
Convergence and estimation of the errors of the method of lines for the solution of the differential equation of the flexure of isotropic plates 5927
- Vadovic, F.**  
Contribution to the theory of errors of the photoelastic method 288
- Vafiadakis, A. P.**  
See Theocaris, P. S. 5205
- Vagas, I.**  
Entropy theory of flood waves 471
- Vagin, V. A.**  
See Aleksandrov, I. A. 2710  
Aleksandrov, I. A. 5598
- Vagners, J.**  
Modified long-period behavior due to tesseral harmonics 4632
- Vahl, W. A.**  
See Weirich, R. L. 3565
- Vaidya, P. G.**  
See Doak, P. E. 8166
- Vaindiner, A. I.**  
A procedure for solving boundary value problems with similar operators 7489
- Vainikko, G. M.**  
On the stability and convergence of the collocation method 8317
- Vainshtein, I. I.**  
Motion of an ideal fluid in a Coriolis force field 3488
- Vaisblat, M. B.**  
Application of the variational principle to the solution of some problems in the theory of plasticity 6740  
See also Bolotov, A. A. 5504
- Vajna, Z.**  
A study on impellers of highly cambered forward curved blading 480
- Vakulenko, A. A.**  
On the disintegration of the structure and strength of polymer materials 879  
Theory of viscoelasticity 8423
- Valanis, K. C.**  
Some exact wave propagation solutions in viscoelastic materials 230  
The viscoelastic potential and its thermodynamic foundations 4951  
Propagation of a large amplitude longitudinal wave in a semi-infinite elastic rod 9467
- Valbert, G.**  
Tests of behavior of welded tubular assemblies 3400  
Tests on welded connections between a joist and a concrete-filled tubular column 7917
- Valentin, F. H. H.**  
See Carleton, A. J. 9599
- Valid, R.**  
A case of plastic anisotropy studied on a torsion-tension beam 885
- Valkov, L. S.**  
Stabilization of rotary motion of an aircraft without natural damping by a variable-structure systems with a relay supplementary organ 9231
- Vallerani, E.**  
Effect of tip blunting on cone laminar heat transfer 8001
- Valliappan, S.**  
See Zienkiewicz, O. C. 3296
- Valov, G. M.**  
The first fundamental problem of the theory of elasticity for a rectangular parallelepiped 7603
- Valsamakis, E. A.**  
Observation of plasma vortices and their magnetic fields inside a conical theta-pinch 3784  
See also Small, R. L. 1310
- Valvis, P. G.**  
Location of a surge tank in relation to speed regulation 1153
- Van Atta, C. W.**  
Correlation measurements in grid turbulence using digital harmonic analysis 6308
- Van Bladel, J.**  
Low frequency scattering through an aperture in a rigid screen 6521  
Low-frequency scattering by hard and soft bodies 8179
- Van Buren, A. L.**  
Reflection of finite-amplitude ultrasonic waves: Part 1, Phase shift 9929  
Reflection of finite-amplitude ultrasonic waves: Part 2, Propagation 9930
- Vance, W. E.**  
See Hagan, T. N. 2908
- van den Driessche, P.**  
Forced flow of a rotating viscous liquid subject to internal heating 1081
- Van Dep, N.**  
Stability of Couette flow of the anamalous Grad fluid 4342
- Van Der Heeden, D. J.**  
Experimental evaluation of heat transfer using thermal oil as a heat transfer medium: Part 2 8903
- van der Linden, C. A. M.**  
The axial stiffness of marine diesel engine crankshafts: Part 2, Theory and results of scale model measurements and comparison with published formulae 4063
- Vanderplaats, G. N.**  
See Hill, L. A., Jr. 6978
- Vanderplas, J. M.**  
A method for determining probabilities for correct use of Bayes's theorem in medical diagnosis 8307
- Vander Stoep, D. R.**  
Trajectory shaping for the minimization of state-variable estimation errors 853
- van der Toorn, L. J.**  
Improved evaluation of Charpy impact test data 1001
- Vanderveldt, H.**  
See Liebowitz, H. 9535
- van der Zanden, A.**  
See Perlock, J. 3304
- Van Dyke, M.**  
See Conti, R. 7117
- Van Fo Fy, G. A.**  
Nonlinear theory of creep of certain polymers 9323  
See also Belyankin, F. P. 7629
- van Katwijk, P. A.**  
Stress-analysis methods for laterally loaded orthogonally stiffened plates 1644  
See also Jaeger, H. E. 5239
- van Lammeren, Th. W. M.**  
Programming of numerically controlled machine tools 3060
- van Leeuwen, J.**  
Temperature measurement in fluids with a high viscosity and a low thermal conductivity 9805
- van Mal, H. H.**  
See Akerboom, F. 3611
- Van Ness, H. C.**  
See Klaus, R. L. 32
- Van Ness, J. E.**  
Formation of the coefficient matrix of a large dynamic system 35  
See also Imad, F. P. 3054
- Van Rooyen, G. T.**  
The stress and strain distribution in a propagating Lüders front accompanying the yield-point phenomenon in iron 5903
- Van Ryzin, J.**  
A stochastic a posteriori updating algorithm for pattern recognition 4893
- Van Sant, J. H.**  
The spot-insulated plate 8050
- van Stralen, S. J. D.**  
The growth rate of vapor bubbles in superheated pure liquids and binary mixtures: Part 1, Theory 7266  
The growth rate of vapor bubbles in superheated pure liquids and binary mixtures: Part 2, Experimental results 7267
- Van Thinh, N.**  
On velocity measurements in turbulent flow by hot wire anemometer 8875
- Van Tienhoven, J. C.**  
Translations of foreign literature on hydraulics 5281
- Van Tiggelen, P. J.**  
See Duval, A. 2824
- Van Tonder, C. P. G.**  
See Bieniawski, Z. T. 8651
- van Vyong, N.**  
Stability of motion in a critical case 3923
- Van Wijngaarden, L.**  
On the equations of motion for mixtures of liquid and gas bubbles 7173
- Vapnik, V. N.**  
Algorithms with complete memory and recurrent algorithms in the problem of learning pattern recognition 9264
- Vapnyarskii, L. B.**  
Some examples of the solution of optimal control problems by means of the method of variations in state space 61

- Varah, J. M.**  
The calculation of the eigenvectors of a general complex matrix by inverse iteration 7509
- Varaiya, P.**  
*See Desoer, C. A.* 4870
- Varcop, L.**  
Contribution to the dynamics of forced-flow evaporator systems 4542
- Varga, J.**  
Contribution to the investigation of the intensity of cavitation erosion  
Some new approaches and further goals of cavitation research in turbo pumps 6356
- Varga, T.**  
On the evaluation of impact tests 6149
- Vargin, M. N.**  
Influence of the side walls of an experimental tray on the measured soil pressures 6059
- Vargo, L. G.**  
Vehicle mass-exhaust velocity variations in free space 1340
- Varma, A. K.**  
Simultaneous approximation of periodic continuous functions and their derivatives 24
- Vartanyan, A. V.**  
Investigation of constant-power heat flux regulating systems in solar furnaces 1995
- Varvak, A. P.**  
Nonlinear problem of the stability of a cylindrical shell with a filler 5057
- Varvak, M. Sh.**  
Limiting equilibrium of shallow shells reinforced by ribs 6998
- Varvak, P. M.**  
*See Verizhenko, E. P.* 9421
- Varzhanskaya, T. S.**  
Boundary layer on a plate in a longitudinal flow and the laminar wake behind the plate 435
- Vasilenko, A. T.**  
Investigation of the stressed state of thin anisotropic shells of revolution under antisymmetric loading 4086
- Vasilenko, R. M.**  
Stereophotogrammetric investigations of rock-fill dams deformations 298
- Vasilescu, C. A.**  
On a method for the computation of gas turbine cycles 8108
- Vasilev, A. P.**  
Theory of radiation transfer in a plasma 623
- Vasilev, D. M.**  
Radiographic method for determining the residual stresses and the oxygen concentration in titanium 301
- Vasilev, L. A.**  
Use of an interferometer with a diffraction grating to investigate flow around models in a shock tube 8883
- Vasilev, M. Ya.**  
Shock initiation of an explosion: Part 2, Critical energy 656
- Vasilev, N. A.**  
Measurement of the cross correlation between a signal in an underwater sound channel and the primary signal 2109
- Vasilev, O. F.**  
On the influence of unsteadiness in the motion of an open fluid flow 3456
- Vasilev, P. P.**  
*See Morozov, I. I.* 8939
- Vasilev, V. Z.**  
Stress in an elastic isotropic half-space near the end of a vertical cylindrical cutout 4026
- Vasilev, Yu. N.**  
Theory of a supersonic gas ejector with a cylindrical mixing chamber 421
- Vasileva, G. V.**  
Influence of depth of evaporation surface on convective heat and mass transfer in evaporative cooling 3714  
*See also Pchelko, I. G.* 8257
- Vasileva, N. P.**  
Optimality criterion for logical-element parameters based on the condition of maximum stability 9263
- Vasileva, R. V.**  
Measuring the velocity of a gas wake in a shock tube from the induced electromotive force 1935
- Vasilishin, B. V.**  
Application of the method of summed representations to the solution of the mixed problem of the theory of elasticity 8397
- Vasilyev, Yu. F.**  
Model of a seismic fault 9120
- Vasin, R. A.**  
On the shape of a hardening function in the theory of flow 4971
- Vatazhin, A. B.**  
Electric fields in magnetohydrodynamic channels in the presence of electrode potential drop  
Heating of a medium as a result of Joule energy dissipation  
Deformation of the velocity profile in an inhomogeneous magnetic field 1269  
3774  
7311
- Vater, M.**  
Comparison of wire shot and steel shot as blasting media 1427
- Vaughan, H.**  
Dynamic plastic buckling of sandwich shells 4111  
*See also Florence, A.* 6783
- Vaughan, R. C.**  
*See Gupta, K. K.* 290
- Vaughn, H. R.**  
Boundary conditions for persistent roll resonance on re-entry vehicles 2703
- Vcherashii, R. I.**  
*See Vorobev, V. G.* 4012
- Vecsei, K.**  
Determination of gas flow rate by the reference-velocity method 1930
- Veenstra, P. C.**  
*See Mot, E.* 3308
- Veeraburus, M.**  
*See Williams, R. K.* 7281
- Veerman, C. C.**  
Plasticity and fatigue research of metals by means of exo-electrons: Part 1, Part 2, Part 3 3343
- Vegh, L.**  
A bending theory of a hyperbolic paraboloidal shell 140
- Veinik, A. I.**  
Thermodynamics: 3rd edition, revised and enlarged 2748
- Vejvoda, O.**  
*See Stastnova, V.* 9809
- Veldkamp, G. R.**  
Canonical systems and instantaneous invariants in spatial kinematics  
Burmester's theorem and the synthesis of mechanisms 3091  
5254
- Velikoivanenko, E. A.**  
*See Makhnenko, V. I.* 5644
- Velkoff, H. R.**  
Effect of an electrostatic field on boundary-layer transition 447
- Vellozzi, J.**  
Gust response factors 5238
- Venable, D.**  
*See Taylor, R. W.* 3814
- Venediktova, R. I.**  
Study of mass transfer in the extraction of moisture from capillary-porous materials 3711
- Venezian, G.**  
Effect of modulation on the onset of thermal convection 7235
- Venkata Apparao, K.**  
*See Kameswara Sarma, P.* 4514
- Venkata Rao, C.**  
Heat transfer in noncircular conduits: Part 1, Laminar forced convection in annuli 6398  
*See also Krishnamurty, V. V. G.* 2779
- Venkatesh, S.**  
*See Sreenath, A. V.* 7456
- Venkatram, T.**  
Effect of direction of cooling water flow in a vertical bayonet condenser and its surface characteristics on the rate of heat transfer in dropwise condensation 8935
- Venkatraman, B.**  
A note on the creep of variable thickness circular plates 2361  
*See also Patel, S. A.* 5882
- Venkayya, V. B.**  
Energy distribution in an optimum structural design 6985
- Vennett, R. M.**  
*See Clough, W. R.* 1725
- Ventsel, E. S.**  
*See Vinokurov, L. P.* 5016
- Venzi, S.**  
Instrumented Charpy impact test in the study of brittle fracture of steel 7855
- Verdeyen, J.**  
Soil mechanics 2449

- Verduzio, L.**  
Shock wave stability for supersonic flow in diverging duct 408
- Veremeenko, S. V.**  
Damping of flexural oscillations in a rod with free ends 5096
- Vereshchagin, Yu. F.**  
Determination of the characteristics of rigidity of elements of ribbed plates 5024
- Verheest, F. G.**  
Waves in multicomponent Vlasov plasmas with anisotropic pressure 605  
Multicomponent beam-plasma waves 1274
- Verizhenko, E. P.**  
Amplitudes of nonlinear oscillations of rectangular plates 9421
- Verma, A. P.**  
Seepage of groundwater in heterogeneous soil on sloping bedrock 2137  
Motion of immiscible liquids in a cracked heterogeneous porous medium with capillary pressure 9973
- Verma, G. S.**  
See Darbari, G. S. 7383  
See Tripathi, R. C. 9933
- Verma, P. D. S.**  
Couette flow of micropolar fluids 3437
- Verma, V. V.**  
See Agarwal, K. N. 1952
- Vermeyden, P.**  
See Kuipers, J. 6203
- Vermeyen, I. L.**  
Ringdynamometers 1169
- Vernescu, Al.**  
See Popescu, V. 7033
- Veronis, G.**  
Effect of a stabilizing gradient of solute on thermal convection 4518  
See also Schnecko, P. 547
- Veselovskii, G. V.**  
Calculation of thin-walled circular continuous beams 9338
- Vesic, A. S.**  
Behavior of granular materials under high stresses 979
- Vest, C. M.**  
Stability of natural convection in a vertical slot 7954
- Vialov, S. S.**  
On cohesive soils deformation theories 4184
- Vic, R.**  
See Parisot, J. 1185
- Vicente, R. O.**  
See Jeffreys, H. 9297
- Vichnevetsky, R.**  
Analog/hybrid solution of partial differential equations in the nuclear industry 5792
- Vickery, B. J.**  
Load fluctuations in turbulent flow 4453
- Victor, D. J.**  
Beams under distributed load creating moment, shear, and torsion 4059
- Victory, E. L.**  
See Torda, T. P. 8753
- Vidal, A.**  
Effect of nonlinear temperature profiles on the onset of convection driven by surface tension gradients 1973
- Vidal, R. J.**  
Heat-transfer measurements with a catalytic flat plate in dissociated oxygen 2778
- Vidican, P.**  
See Kaiduc, C. 9858
- Vidosic, J. P.**  
Metal machining and forming technology 8608
- Vidrine, D. J.**  
Field verification of the effect of differential pressure on drilling rate 6910
- Vidyanidhi, V.**  
Secondary flow in a rotating channel 7960  
Hydromagnetic flow in a rotating straight pipe 8988
- Viecelli, J.**  
Atmospheric refraction and focus of blast waves 2104
- Viegas, J. R.**  
Effect of multispecies ionization on electrical conductivity calculations 5588
- Vieland, L. J.**  
Specific heat of niobium-tin 7216
- Viest, I. M.**  
See Hall, D. H. 6109
- Vietor, K. W.**  
See Diestel, H. G. 8309
- Vigdorchik, V. M.**  
Taking symmetry into account in the case of calculations for endurance 1736
- Vignes, J.**  
Algorithm for determining the local extremum of a function of several variables 4850
- Viidik, A.**  
A rheological model for uncalcified parallel-fibered collagenous tissue 750
- Viktorov, I. A.**  
Reflection of ultrasonic Lamb and Rayleigh waves by a rectangular end section of a plate 2923
- Vilenkin, S. Ya.**  
Application of a regularizer for estimating an input signal from the realization of the output signal for a known pulse-transfer function 2252
- Vilenskii, T. V.**  
See Khzmalyan, D. M. 6432
- Vilipylid, Yu. K.**  
See Narets, L. K. 9340
- Villasenor, A. J.**  
Digital spectral analysis 2424
- Vincent, J.**  
On some values of the discharge coefficient of diaphragms at low Reynolds numbers 9627  
On the determination of an optimal profile of a sonic nozzle 9694
- Vincent, R. K.**  
See Hunt, G. R. 3700
- Vinh Tuong, N.-P.**  
On the transition from harmonic regime to the viscoelastic transient regime 5879
- Vinitskii, A. M.**  
The velocity of a body shedding a number of mass flows with varying velocities: A generalization of the Tsiolkovskiy formula 7584
- Vinitskii, L. E.**  
See Belikov, L. B. 3381
- Vinkler, O. N.**  
See Gladshtein, L. I. 3326
- Vinnichenko, N. K.**  
Results of experimental investigations of turbulence in the troposphere 9984
- Vinnik, V. M.**  
Free torque oscillations of one type of shaft of variable rigidity 7750
- Vinogradov, A. I.**  
An algorithm in the theory of optimum systems 1034
- Vinogradov, B. S.**  
Experimental investigation of the interaction region during a blast secondary stream in two-dimensional supersonic flow 7116
- Vinogradov, G. V.**  
Steel-to-steel friction over a very wide range of sliding speeds 738  
See also Yanovskii, Yu. G. 3439
- Vinokurov, E. F.**  
Design of optimal types of wall foundations by means of a digital computer 5155
- Vinokurov, L. P.**  
Critical state of rods and rod systems in the case of extension, flexure, torsion and their simultaneous actions with variation of the dimension of the strain 1618  
Calculation of shallow shells, combining the discrete method with the method of variations 5016
- Vinokurov, S. G.**  
Effect of initial irregularity on the flexure of a shallow panel 7703
- Virabov, R. V.**  
Constant mass conditions in belt drives 7010
- Viradyan, G. V.**  
A new proof of the completeness of one system of general eigenfunctions generated by the equation of string vibration 4837
- Visarion, V.**  
Stress states in the theory of shells 3170
- Vishik, M. I.**  
Fifty years of theory of partial differential equations at Moscow University 3003
- Vishnevskii, L. D.**  
One case of the optimization of motion of a solid body with a variable mass 9277
- Vishnevsky, C.**  
See Wallace, J. F. 2483
- Vishnyakov, Ya. D.**  
Methods of determining the energy of stacking faults: Review 8448



- Viskanta, R.**  
Unsteady energy transfer in a layer of gray gas by thermal radiation 2790  
Heat transfer by combined conduction and radiation between concentric spheres separated by radiating medium 4533  
*See also* Heinisch, R. P. 1209  
Toor, J. S. 2791  
Crosbie, A. L. 3658  
Schornhorst, J. R. 3699  
Bathla, P. S. 4532  
Crosbie, A. L. 5481  
Schornhorst, J. R. 7261  
Tarshis, L. A. 9812
- Visontai, J.**  
Photoelastic tension study on the wind brace of a 24 story building 5198
- Visvalingam, A. C.**  
A bar-mounted vibrating-wire strain gauge 293
- Viswanatha, C. S.**  
*See* Sundara Raja Iyengar, K. T. 3374
- Vitshas, A. F.**  
Investigation of a self-sustaining electrical discharge in a supersonic gas flow in a transverse magnetic field 7320
- Vlasov, B. F.**  
Two problems of the equilibrium of plates 8493
- Vlasov, E. V.**  
Calculation of the noise characteristics of jet airliners 9920
- Vlasov, I. I.**  
Transmission function of a burning layer of solid fuel 5538
- Vlasov, Yu. S.**  
Nomogram for determining the lifetime of an artificial Earth satellite 3810
- Vlietstra, J.**  
The APT programming language for the numerical control of machine tools 5783
- Vocadlo, J.**  
*See* Parzonka, W. 7195
- Vogel, J. V.**  
Inflow performance relationship for solution-gas drive wells 4748
- Vogel, R. G.**  
Control and dynamic behavior of the Dodewaard reactor and turbine 4883
- Vogel, U.**  
Characteristics of low pressure probes in nonisotropic environments 6361
- Vogel, W. M.**  
*See* Grant, H. L. 4759
- Vogelpohl, G.**  
Safe-performance journal bearings, computation methods for design and operation: Vol. I, Fundamentals and calculations, Second revised edition 735
- Vogenitz, F. W.**  
Theoretical and experimental study of rarefied supersonic flows about several simple shapes 6283
- Vogt, H. L.**  
Mechanical impedance of the sitting human under sustained acceleration 5730
- Voichak, V. P.**  
Investigation of turbulent concentric jets of compressible gas 5353
- Voigtlander, J.**  
*See* Bohme, F. 1036
- Voinescu, V.**  
*See* Popescu, V. 7033
- Voinov, A. N.**  
*See* Chittawadgi, B. S. 5527
- Voinov, A. P.**  
Combustion in the case of rapid mixing of the hot products of combustion with the secondary air or combined mixtures 8959
- Voit, S. S.**  
Tides in oceans and seas: A survey of Soviet research during the past fifty years 715
- Vokoun, V.**  
The influence of temperature cycle characteristics on the hysteresis loop figure of thermal fatigue 5189
- Volarovich, M. P.**  
The correlation between the longitudinal wave propagation velocity and rock density at high confining pressures 1385  
Variation in the structure of the pore space in sandstones under pressure 9108
- Volchok, I. P.**  
Effect of nonmetallic inclusions on crack-propagation in steel 45L 1733
- Volger, A. H.**  
Solution of systems of linear equations in the proximity of a singularity 8334
- Volkov, A. P.**  
Application of the Bubnov-Galerkin method to the solution of a three-dimensional contact problem in the theory of elasticity 4946
- Volkov, M. S.**  
Slightly inhomogeneous Roche problem for a satellite 9273
- Volkova, G. Z.**  
Investigation of moduli of elasticity of rigidity of constructional plastics with an isotropic filler under pressure 6969
- Volkovisky, V.**  
*See* Moreau, C. 2764
- Volland, H.**  
Heat conduction waves in the upper atmosphere 2151  
Full wave calculations of gravity wave propagation through the thermosphere 9982
- Vollmer, H.**  
Transient temperature distribution in a reactor channel with cylindrical fuel rods and compressible coolant 5474  
Linear dynamics model for steam cooled fast power reactors 8978
- Volnin, B. A.**  
Method of analysis of sluiced soils consolidation: One-dimensional problem 8583
- Voloshchuk, V. M.**  
Aerosol flow past obstacles at small Stokes numbers 4359
- Voloshin, N. V.**  
The elimination of an oil wedge in the sliding contact of lubricated electrical machines 9146
- Volosov, V. I.**  
On a method of electron heating in a closed magnetic trap 5580
- Voloven, L. M.**  
On graphical plotting of amplitude-phase characteristics by momentum curve 1486
- Volovets, L. D.**  
Determination of the strength of sheet glass on a flexible plate 1007
- Volovik, Yu. I.**  
Analytic research of the drying process of polydispersible materials with a high solid phase content 3716
- Volpert, V. S.**  
*See* Aleksandrov, A. Ya. 5858
- Volta, E.**  
False interpretations of point-record diagrams 7541
- Volz, R. A.**  
Design of a digital controller for a tracking telescope 2241
- von Backstrom, T. W.**  
The flow in a supersonic diffuser 1853
- von Baranoff, A.**  
Analytical form of the kernel of the generalized Poisson integral equation 1828
- von Bellenberg, W. A.**  
*See* Muller, H. G. 5174
- Von Bonin, L.**  
Parametric investigation on the influence of the take-off weight of a VTOL subsonic sound combat system 4622
- Von Der Decken, J.**  
*See* Gersten, K. 5283
- von Elbe, G.**  
Extinguishment of solid propellants by rapid depressurization 1260
- von Gierke, H. E.**  
*See* Henzel, J. H. 1436
- von Goeler, S.**  
*See* Smith, C. G. 5578
- Vonk, G.**  
A compact heat exchanger of high thermal efficiency 8940
- von Kerczek, C.**  
*See* Tuck, E. O. 1406
- von Schalien, R.**  
Transient heat conduction in a hollow cylinder after a sudden temperature change in the medium flowing through the cylinder 1963
- Vooren, J. van der**  
*See* de Jongh, M. J. 202
- Voorhees, C. G.**  
Effect of upstream mass injection on the pressure field in a cavity 9669
- Vorobev, V. G.**  
Simulation of certain types of special gyroscopes 4012

- Voronin, F. S.**  
Adiabatic turbulent flow of a gas in a cylindrical tube 6265
- Voronkin, V. G.**  
Nonuniform laminar boundary layer of dissociating air on axisymmetric bodies 8801
- Vorontsov, P. A.**  
Analysis of the aerological conditions of the development of thermals 8248
- Vorovich, I. I.**  
On the basic properties of a system of homogeneous solutions 4927
- Vos, R. G.**  
See Lee, T-t. 3181
- Vosikovskiy, O.**  
Displacements and strains at the crack tip 6929
- Vosskuhler, H.**  
See Herzog, U. 9512
- Vouillon, C.**  
See Launay, P. 9079
- Vouyoucalos, S.**  
Cross flow cooling towers analyzed 2812
- Voytenko, D. M.**  
The effect of the Mach number on the flow in a three-dimensional separation region 449
- Vozlinskii, V. I.**  
On the bifurcations of stationary motions of conservative systems with two cyclic coordinates 3096
- Voznesenskii, A. A.**  
On the calculation of elastoplastic shells of revolution in complex form 9357
- Vrana, J. C.**  
Dynamic soaring 4896
- Vreede, F. A.**  
General principles in structural mechanics of bars and the second-order theory 4991
- Vreeland, T., Jr.**  
See Moon, D. W. 3150
- Vrentas, J. S.**  
See Duda, J. L. 1820
- Vreugdenhil, C. B.**  
See Manuel, A. R. 8855
- Vugts, J. H.**  
The hydrodynamic coefficients for swaying, heaving and rolling cylinders in a free surface 8263
- Vukalovich, M. P.**  
A corrected equation of state for superheated steam  
Experimental investigation of the specific volumes of air 4494  
8891
- Vukobratovic, M.**  
Note on the sensitivity of nonlinear dynamic systems 8346
- Vulkan, G. H.**  
See Stephenson, R. J. 4667
- Vulliet, W. G.**  
Effect of resonance radiation on the transfer of shock-precursor radiation 1232
- Vushko, V. P.**  
Two-dimensional problem of asymmetric elasticity for isotropic and anisotropic elastic media 8395
- Vvedenskaya, N. D.**  
Three-dimensional laminar boundary layer 8800
- Vybornov, V. G.**  
Experimental investigation of the stability of closed conical shells under the action of uniform external pressure 8520  
Taking into account the effect of initial irregularities on the stability of thin plates and shells 9393
- Vykukal, H. C.**  
Dynamic response of the human body to vibration when combined with various magnitudes of linear acceleration 7466
- Vylekzhanin, V. D.**  
Lower and upper bounds for the torsional stiffness of a prismatic bar in steady creep 2322
- Vyrvo, V. M.**  
Rated resistance of piles in constructions for mining exploitation 988
- Vysokoostrovskaya, E. A.**  
Plane vibrations of a thin circular ring on two supports 939
- W**
- Wachowiak, J.**  
See Bielewicz, E. 8701
- Wachtell, G. P.**  
Thermal behavior of shipping casks under fire conditions 8063
- Wachtman, J. B., Jr.**  
Mechanical and thermal properties of ceramics 9958
- Wack, B.**  
Performance of a platform for measuring the density of cylindrical soil samples, called Phogadense 246  
Density field of a noncohesive soil sample submitted to a triaxial test 8586
- Waddick, R. K.**  
See Fugelso, L. E. 7797
- Wadhwa, Y. D.**  
Linear time-dependent fluid flow problems 3447
- Wadsworth, M.**  
Differential eigenvalue problems with particular reference to rotor blade bending 3244
- Wadsworth, N. J.**  
Load transfer from broken fibers in composite materials 3323
- Waechter, R. T.**  
Steady electrically driven flows 3757
- Wagemann, C.-H.**  
Iterative determination of limit load of an axially compressed continuous beam of steel 6979
- Wagener, F. v. M.**  
The results of some static and repetitive consolidation tests and their significance on road design 3279
- Wagener, J.**  
See Hertrich, H. 4455
- Waggoner, A. P.**  
See Fournery, M. E. 7408
- Wagner, H.**  
Approximate frequencies of nonlinear systems 7753
- Wagner, R. D., Jr.**  
See Weinstein, L. M. 2747
- Wagner, R. E.**  
Dynamic study of temperature transducers by use of an optical method 4498
- Wagner, S.**  
On the singularity method of airfoil theory for incompressible flow 7154  
See also Hesse, S. 8662
- Wagner, W. S.**  
See Ludeke, C. A. 5753
- Wahab, R.**  
Seakeeping qualities of a high-speed merchant-ship with conventional bow and bulbous bow 5707  
See also Jossen, W. P. A. 3863
- Wahlbeck, P. G.**  
Effusion: Part 2, Angular number distributions of gaseous cadmium from a right-circular cylindrical orifice into vacuum 8793  
See also Adams, J. Q. 7125
- Wahls, H. E.**  
See Smith, R. E. 7801
- Wainwright, N.**  
See Beck, M. S. 822  
Beck, M. S. 4877
- Wakao, N.**  
Radiant heat transfer in adiabatic tubular reactor containing gray gas 6406
- Walbridge, N. L.**  
Off-crest optical method of measuring the amplitudes of surface ripples 2724
- Walchner, O.**  
Research on hypersonic stability derivatives in pitch for blunted slender cones 2628
- Walcott, W. W.**  
See Khanna, S. M. 7474
- Walczak, J.**  
See Golecki, J. 126
- Walden, H.**  
Improvement of mean orbital elements for Vinti's spheroidal satellite theory 4631  
See also Bonavito, N. L. 9036
- Walder, D. N.**  
Ultrasonic monitoring of decompression 1366  
See also Evans, A. 760
- Waldhausen, J. A.**  
See Abel, F. L. 10002
- Waldron, K. J.**  
Hybrid overconstrained linkages 1782  
Symmetric overconstrained linkages 8720

- Walenta, Z. A.  
Optimization of the parameters of a double-diaphragm shock tube 1840
- Walker, A. C.  
An analysis of the large deflections of beams using the Rayleigh-Ritz finite element method 8455  
A nonlinear finite element analysis of shallow circular arches 8507  
An analytical study of the rotationally symmetric nonlinear buckling of a complete spherical shell under external pressure 9395  
*See also* Thompson, J. M. T. 4254  
Thompson, J. M. T. 9384
- Walker, D.  
*See* Power, G. 595  
Turner, K. J. 2695
- Walker, I. K.  
*See* Read, A. J. 577
- Walker, J. A.  
Lyapunov functions for feedback systems containing a single time-varying nonlinearity 803
- Walker, L. B.  
*See* Benedict, J. V. 752
- Walker, R.  
Engineering aspects of internal stress in electrodeposits 3320
- Walker, R. W.  
*See* Jones, G. W., Jr. 7075
- Walker, W. F.  
Numerical solution for the interaction of a moving shock wave with a turbulent mixing region 1838
- Walker, W. H.  
*See* Stallmeyer, J. E. 9525
- Wall, J. K.  
Meteoroid environment near the ecliptic 2086
- Wallace, H. W.  
*See* Eschweiler, J. C. 6345
- Wallace, J. E.  
Hypersonic turbulent boundary-layer measurements using an electron beam 9719
- Wallace, J. F.  
A study of the notch effect and of specimen design and loading on the fatigue properties of cast steel 2483
- Wallace, S. A.  
*See* Oehman, W. I. 9759
- Waller, R. A.  
*See* Gee-Clough, D. 9451
- Wallis, K. F. A.  
Random and systematic factors in the scatter of creep data 874
- Wallis, G. B.  
Use of the Reynolds flux concept for analyzing one-dimensional two-phase flow: Part 1, Derivation and verification of basic analytical techniques; Part 2, Applications to two-phase flow 450
- Wallner, F.  
*See* Bruns, H. 4810
- Walsh, A. D.  
*See* Hoare, D. E. 2821
- Walsh, D.  
*See* Aro, T. O. 1312  
Aro, T. O. 2034
- Walsh, E. K.  
Development of shock waves in atmospheres with density and temperature variation 9673
- Walsh, J. B.  
Attenuation in partially melted material 1681  
*See also* Brace, W. F. 5671
- Walsh, T. M.  
A celestial attitude measurement instrument for project scanner 650
- Walter, W. W.  
Destabilization of a nonconservatively loaded elastic system due to rotary inertia 1652
- Walters, C. T.  
Heat-transfer analysis in loss-of-coolant accidents 5784
- Walters, K.  
*See* Barnes, H. A. 353  
Griffiths, D. F. 7955
- Walters, T. S.  
*See* Jones, J. R. 8765
- Walton, T. E., Jr.  
Flight investigation of the effects of Apollo heat-shield singularities on ablator performance 1346
- Walton, W. C., Jr.  
*See* Adelman, H. M. 2410
- Wambsganss, M. W., Jr.  
Simulation of reciprocating gas compressors with automatic reed valves 3607
- Wan, F. Y. M.  
Pure bending of shallow helicoidal shells 3173  
On the displacement boundary value problem of shallow spherical shells St. Venant flexure of pretwisted rectangular plates 8463  
*See also* Reissner, E. 4077  
Reissner, E. 5861
- Wane, M. T.  
*See* Barla, G. 254
- Wang, C.-C.  
Universal solutions for incompressible laminated bodies 7624  
On the geometric structures of simple bodies: A mathematical foundation for the theory of continuous distributions of dislocations 7657  
*See also* Noll, W. 6747
- Wang, C. C. T.  
*See* Tan, C. W. 2856  
Tan, C. W. 6475
- Wang, C.-K.  
*See* Halldorsson, O. P. 3205
- Wang, C. P.  
Mass spectrometric sampling in shock-tube studies 7983
- Wang, C.-S.  
*See* Fan, L. T. 5823
- Wang, C.-Y.  
On high-frequency oscillatory viscous flows 2615
- Planetary science: Equation of state of periclase and Birch's relationship between velocity and density 3846  
Class of exact solutions of the magnetohydrodynamic equations 4582  
Equation of state of periclase and some of its geophysical implications 8235  
A note on the drag of an impulsively started circular cylinder 9653
- Wang, D. P.  
The effect of a gap on a fully cavitating flat plate with a flap 7189
- Wang, H.-C.  
An approach to optimum shape determination for a class of thin shells of revolution 4075  
Radial deformations of cylindrical shells with variable wall thickness 4076  
Orthonormal aspect on vibration modes for a class of nonuniform beams 7761  
*See also* Pao, Y. C. 127
- Wang, J. T. S.  
*See* Stadler, W. 6034  
Bauer, H. F. 6346
- Wang, K. C.  
A new approach to "not-so-slender" wing theory 5410
- Wang, L. R.-L.  
Elastoplastic deflection of tubular beams 7665
- Wang, L. S.  
A study of various limits in radiation heat-transfer problems 555
- Wang, N.-M.  
Effects of plate thickness on the bending of an elastic plate containing a crack 5023  
On the plastic bulging of a circular diaphragm by hydrostatic pressure 8434
- Wang, P. K. C.  
Optimum propulsion of an oscillating hydrofoil 8272
- Wang, T. M.  
Nonlinear bending of beams with concentrated loads 1619
- Wang, T. T.  
Nonlinear mechanical behavior of 1100 aluminum at 300°F 1609
- Wang, W. M.  
Acoustical analysis of a multicylinder engine air-induction system 1352
- Wanhainen, J. P.  
Effect of chamber pressure, flow per element and contraction ratio on acoustic-mode instability in hydrogen-oxygen rockets 1257  
Effect of injection element radial distribution and chamber geometry on acoustic-mode instability in a hydrogen oxygen rocket 9856
- Wankat, P. C.  
A particular unsteady viscometric flow 9618
- Warburton, R.  
New concepts in urban transportation systems 3412
- Ward, E. G.  
*See* Rundell, H. A. 2773

- Ward, J. J.  
Uranium dioxide vent loss in an externally fueled thermionic reactor concept 2026
- Ward, L. C.  
Shock standoff distances of blunt and sharp cones 2745
- Wardaszko, E.  
Weightless whip tension member loaded with a concentrated force 7658
- Ware, G. M.  
Wind-tunnel investigation of the aerodynamic characteristics of a twin-keel parawing 9030
- Warren, A. D.  
See Lasdon, L. S. 1512
- Warner, R. F.  
See Brettie, H. J. 5228
- Warner, R. W.  
An impact energy-absorbing strut employing tube cutting 4307
- Warren, B. E.  
See Amme, R. C. 2921
- Warren, D. W.  
Respiratory volumes in normal speech: A possible reason for intra-oral pressure differences among voiced and voiceless consonants 6594
- Warren, F. W. G.  
Gravity wave damping of hydrostatic oscillations for a buoyant disk 3581  
A problem of gravity wave drag at an interface 4427
- Warsaw, M.  
Cloud-droplet coalescence: Effects of the Davis-Sartor collision efficiency 2131
- Warsi, Z. U. A.  
Studies of wakes created by building blocks 5608
- Wartanowicz, T.  
See Gajewski, P. 5556  
Staniszewski, B. 8150
- Wasan, D. T.  
Role of concentration level of the nondiffusing species in turbulent gas phase mass transfer at ordinary mass transfer rates 4556
- Washizu, K.  
See Otsuki, Y. 5610
- Wasserstrom, E.  
Stability of one-dimensional compressible flows 3513
- Watanabe, E.  
See Shiraishi, N. 312
- Watanabe, K.  
See Matsukawa, Y. 1314  
Uchida, S. 6256
- Watanabe, M.  
The frictional properties of nylon 4774  
See also Matsubara, K. 3870
- Watanabe, S.  
Experimental study on buttock flow stern 1407  
See also Kato, Y. 2053
- Waterhouse, R. B.  
See Bethune, B. 8281
- Watkins, R. K.  
Minimum cover for buried flexible conduits 9488
- Watson, A. G. D.  
Limits on possible solutions of Van der Pol's equation 6611
- Watson, E. C.  
See Rose, W. C. 3549
- Watson, E. M.  
See Chace, W. G. 5626
- Watson, J. W.  
On line solution of optimal nonstationary linear systems 1524
- Watson, M.  
See Zienkiewicz, O. C. 8419
- Watson, P. M.  
Classical cellular convection with a spatial heat source 4521
- Watson, R. W.  
The shock sensitivity of explosive films 2091  
See also Ribovich, J. 5630
- Watson, S.  
See Bonavito, N. L. 9036
- Watson, S. R.  
See Dougherty, J. P. 6471  
Dougherty, J. P. 6472  
Dougherty, J. P. 7322  
Dougherty, J. P. 7323
- Watstein, D.  
See Petersen, P. H. 5233
- Watteau, J. P.  
See Basque, G. 3780
- Wattendorf, F.  
See Lawson, M. 4612
- Watwood, V. B., Jr.  
An equilibrium stress field model for finite element solutions of two-dimensional elastostatic problems 2293
- Wawra, H.  
Comparison of values of elastic constants of quasi-isotropic polycrystalline aggregates calculated from single-crystal constants 2317
- Wayson, A. R.  
Microfocus X-ray mapping of fatigue processes in single-crystal copper 6117
- Wazzan, A. R.  
Laminar boundary layer with mass transfer and slip 4398  
The stability of water flow over heated and cooled flat plates 7148  
Heat transfer of gas-particle flow in a supersonic convergent-divergent nozzle 7249
- Wearing, J. R.  
See Jensen, V. G. 3570
- Weaver, J. A.  
Mathematical model of skin exposed to thermal radiation 9160
- Weaver, J. P. A.  
See Evans, A. 760
- Weaver, J. R.  
A simple occupant dynamics model 5731
- Weaver, L. E.  
Reactor dynamics and control: State space techniques 4907
- Weaver, W., Jr.  
Dynamics of tier buildings 7899
- Webb, D.  
A note on a penny-shaped crack expanding under a nonuniform internal pressure 9304
- Webb, W. H.  
An approximate pressure-angle relation for the axisymmetric supersonic near wake 1852  
Shear stress distribution in confined equilibrium turbulent flows 6306
- Webber, R. F.  
Simplified algebraic characterization of optimal singular control for autonomous linear plants 3073
- Webber, R. L.  
The determination of tear energy of extensible materials of dental interest 4802
- Weber, H. G.  
See Goluba, R. W. 7196
- Weber, J.  
Theoretical and experimental investigation on the similitude applicable to scale model study of the mechanical behavior of granular materials 3281  
Effect of the level of extraneous noises when measuring noise emissions varying with the time in the neighborhood of "noisy plants" 4665  
See also Argyris, J. H. 7872
- Weber, J. A.  
Transverse wave propagation along an applied magnetic field in a collisionless plasma 1284
- Weber, J. -D.  
On a general stability condition of an elastic nonhomogeneous body 156  
Aircraft structural response due to ground impact 7341  
On the properties of a class of nonlinear viscoelastic bodies with hidden parameters 8424
- Weber, T. W.  
See Lee, R. G. 9101
- Webster, J. J.  
Free vibrations of rectangular curved panels 4132
- Wedekind, G. L.  
Theoretical model for predicting the transient response of the mixture vapor transition point in horizontal evaporating flow 560
- Wee, R. B. S.  
See Fahy, F. J. 6003
- Weeks, G. E.  
See Dixon, S. C. 3213
- Weeks, R.  
Exact analysis of an edge dislocation near a surface layer 3147
- Weeks, T. M.  
Sound generation by shock-vortex interaction 4664



- Weger, E.  
See Drda, W. J. 8928
- Weggel, J. R.  
See Maxwell, W. H. C. 8748
- Wehausen, J. V.  
Use of Lagrangian coordinates for ship wave resistance: First- and second-order thin-ship theory 8260
- Wei, C.-C.  
See Taniuti, T. 3575
- Wei, R. P.  
Fatigue-crack propagation in a high-strength aluminum alloy. 6113
- Weidman, D. J.  
A simplified procedure for determining the perforation limits for thin plates 3271
- Weidner, J. P.  
Preliminary investigation of momentum diffusion between two supersonic airstreams in the presence of shock waves 5324
- Weil, J. D. D.  
Application of advanced materials 4447
- Weiland, W. F., Jr.  
Heat-transfer characteristics of a water-to-cryogenic-hydrogen heat exchanger 9837
- Weiler, H. S.  
Direct measurements of stress and spectra of turbulence in the boundary layer over the sea 5403
- Weinbaum, S.  
On the singular points in the laminar two-dimensional near wake flow field 4374
- Weiner, H. J.  
Nonlinear predictors depending on the last observation 4844
- Weiner, P. D.  
See Sweet, H. J. 1743
- Weingarten, V. I.  
Free vibrations of cantilevered conical shells 1677
- Weinhold, K.  
Investigation of wall jets with and without an outside mainstream of zero and positive pressure gradients 9710
- Weinman, J. A.  
Albedo of a striated medium of isotropically scattering particles 3690
- Weinrich, H.  
On the calculation of the Stokes diameter 5661
- Weinstein, A.  
The buckling of plates and beam by the method of zero Lagrangian multipliers and zero divisors 5048
- Weinstein, L. M.  
Electron beam flow visualization in hypersonic helium flow 2747
- Weinstock, J.  
Correlation functions and scattering of electromagnetic waves by inhomogeneous and nonstationary plasmas 2867
- Weirich, R. L.  
Flow-field properties near an arrow-wing: Body model at Mach numbers of 1.60, 2.36, and 2.96 3565
- Weisman, R. N.  
Measuring solid-liquid mixture in closed conduits 6366
- Weiss, B.  
See Rivlin, T. J. 9186
- Weiss, H. G.  
Distribution of pressure and velocity in a hydrocyclone 388
- Weiss, V.  
See Burke, J. J. 4055  
Burke, J. J. 4056
- Weissenbach, B.  
Statistical mechanics of missile motion 7165
- Weissenburger, J. T.  
Effect of local modifications on the vibration characteristics of linear systems 2398
- Weissinger, J.  
See Bollheimer, L. 7488
- Weitsman, Y.  
See Hazen, G. A. 6711
- Welander, P.  
Wind-driven circulation in one- and two-layer oceans of variable depth 1394
- Welby, E.  
Contribution to the study of gas pumping by a cold wall: Medium anisotropy-working duration 5371
- Welch, D. O.  
See Girfalco, L. A. 3146
- Welch, W. J.  
See Buhl, D. 4647
- Weller, E. J.  
Lubricating the back side of the chip 999
- Wellinger, K.  
Sliding wear investigation of hard metallic and nonmetallic materials under the action of abrasive particles 1425
- Wellman, E. J.  
See Macey, J. P. 9649
- Wells, A. C.  
See Megaw, W. J. 1380
- Wells, D. R.  
Measurement of one-dimensional Lagrangian motion of water waves 3594
- Wells, F. E.  
A survey of leak detection for aerospace hardware 9559
- Wells, J. R.  
See Morris, R. C. 9216
- Weina, H.  
See Dorman, T. E. 4440
- Welsch, J. H.  
See Golub, G. H. 9208
- Welsh, R. L.  
See Chan, B. C. 2904
- Welsh, W. E., Jr.  
See Mirels, H. 1125  
Ching, A. 5648
- Wempner, G.  
Finite-element analysis of thin shells 5933
- Finite elements, finite rotations and small strains of flexible shells 9379
- See also Wilms, E. V. 956
- Wen, S.-L.  
An extension of Lighthill's result on asymptotic evaluation of multiple Fourier integrals 7498
- Wendahl, R. W.  
See Coleman, R. F. 6529
- Wende, D.  
Evaluation of the accelerating ability of motor coaches running on rails 2281
- Wenglarz, R. A.  
Gyroscopic drifts associated with rotational vehicle vibrations 7579
- Wenig, H. G.  
A theory of the Ranque-Hilsch effect 2603
- Wenk, E., Jr.  
Submarines to advance study and effective use of the sea 5247
- Wenner, M. L.  
On torsion of an elastic cylindrical Cosserat surface 5860
- See also Jacobson, M. J. 5958
- Wennersten, D. L.  
Magnetohydrodynamics in micro-scale 2883
- Wentink, G.  
Measurements of soot concentration in the combustion gases of some liquid fuels 588
- Werkheiser, A. H.  
See Steverding, B. 8667
- Werner, J.  
Inclusion theorems for nonlinear ordinary boundary-value problems and forced vibrations 8312
- Werno, M.  
See Madej, J. 5161
- Wertheim, M. S.  
New model for classical fluids: Part 2 525
- Wertwijn, G.  
See Rumbarger, J. H. 7009
- Wesley, T. A. B.  
See Tyler, B. J. 2830  
Ashmore, P. G. 6433
- Wesolowski, Z.  
Deformation tensors and rotation tensors for material surface and linear elements 2179
- On the screw dislocation in finite elasticity 5867
- West, A. A.  
An analysis of the civil marine hovercraft 642
- Air cushion vehicles: A selective bibliography (August 1967-January 1968) 6487
- The air cushion performance of a tracked hovercraft in a tunnel 7447
- The compressible hovercraft jet 9685
- West, H. H.  
Continuous method of suspension bridge analysis 7895

- West, K. A.  
See Swaroop, R. 7473
- Westbrook, D. R.  
Symbolic approach to dynamical problems in plates 9418
- Westkaemper, J. C.  
Turbulent boundary-layer separation ahead of cylinders 1871
- Weston, J. A.  
See Eisenklam, P. 3715
- Wetherald, R. T.  
See Manabe, S. 2152
- Wexler, D.  
See Halanay, A. 9183
- Weymann, H. D.  
Elastic and thermal waves in solids at hypersonic frequencies 7791
- Weynand, E. E.  
See Lawrence, R. A. 3526
- Whang, Y. C.  
Interaction of the magnetized solar wind with the Moon 4397
- Wharton, C. B.  
Microwave scattering from plasma waves 8126
- Wheatley, J. C.  
Experimental properties of liquid He<sup>3</sup> near the absolute zero 7212
- Wheeler, J. C.  
Thermodynamic bounds on constant-volume heat capacities and adiabatic compressibilities 3626
- Wheeler, L. A.  
See Nahi, N. E. 3984
- Wheeler, L. T.  
Some theorems in classical elastodynamics 7601
- Whillier, A.  
Prediction of the cooling rate of the human body 6403
- White, D. J.  
A transmission microscope polariscope for photoelastic analysis 3363
- White, G.  
On the synthesis of gear trains of minimum size 1777  
Design procedure and computed solutions for a nine-speed gear train employing ten gears 7015  
See also Sanger, D. J. 9595
- White, J. E.  
Computed response of an acoustic logging tool 4754
- White, J. L.  
Motion of continuous surfaces through stagnant viscous non-Newtonian fluids 5265
- White, M. P.  
Earthquake damage to a uniform shear-flexible structure 4293
- White, M. S.  
Linear oscillation viscometer 8880  
See also Solomons, C. 8881
- White, P. H.  
Cross correlation in structural systems: Dispersion and nondispersion waves 8563
- Application of the fast Fourier transform to linear, distributed system response calculations 9185
- White, P. R. S.  
Fluid logic control of pumps for extracorporeal circulation 1441
- White, R. B.  
Effect of gaps on the loading distribution of planar lifting surfaces 2691
- White, R. N.  
See Harris, H. G. 6959  
See Corum, J. M. 9576
- White, R. W.  
Theoretical study of acoustic simulation of in-flight environments  
Effect of valve opening time on gas gun performance 4656
- Whitehead, J. A.  
See Chen, M. M. 545
- Whitehouse, G. D.  
Prediction of limiting response of panel-cavity coupled transient oscillations 5107
- Whitelaw, J. H.  
See Escudier, M. P. 2816  
See Richardson, P. D. 7221  
See Kacker, S. C. 7961  
See Kacker, S. C. 8101
- Whitfield, J. D.  
See George, O. L., Jr. 2627
- Whitham, G. B.  
Variational methods and applications to water waves 3584  
See also Seliger, R. L. 4839
- Whitman, R. I.  
See McKee, T. B. 5699
- Whitman, R. V.  
See D'Appolonia, D. J. 8580
- Whitmore, J. K.  
See Wilbanks, W. A. 5745
- Whitten, D. G.  
See Simpson, R. L. 3551
- Whittier, J. S.  
See Lock, M. H. 941  
See Lock, M. H. 5069  
See Kerber, R. L. 9537
- Whittle, L. S.  
An artificial mastoid for the calibration of bone vibrators 2989
- Whomes, T. L.  
See Dowson, D. 4787
- Whorlow, R. W.  
See Manfre, G. 2597
- Wiancki, M. J.  
Scale model tests of slabs with prestressed gusset plates 5230
- Wiberg, D. M.  
Feedback control of linear distributed systems 1536
- Wible, B. L.  
See Hoffman, H. S. 6595
- Wichmann, H. G.  
See Meert, A. 8140
- Wick, R. S.  
Longitudinal hydraulic wave phenomena in fuel assemblies consisting of concentric fuel elements 8979
- Wicklund, A. W.  
See Vieland, L. J. 7216
- Wideman, C. J.  
Strain steps associated with earthquakes 2960
- Widera, O. E.  
A boundary layer theory for the end problem of a circular cylinder 8409  
See also Amon, R. 6762
- Widnall, S. E.  
See Heller, H. H. 7192
- Widnall, W. S.  
Applications of optimal control theory to computer controller design 3081
- Wiede, D.  
The effects of the lateral instability of high center of gravity freight cars 6017
- Wieckowski, J.  
Extreme internal forces in a system of two masses during retardation 3102
- Wiederhorn, S. M.  
Critical analysis of the theory of the double cantilever method of measuring fracture-surface energies 1721  
Moisture assisted crack growth in ceramics 3348
- Wiegand, J. H.  
The failure mechanism of solid propellant grains 6726
- Wiele, H.  
Investigation into thermal deformations of the upright of a large-size spur gear hobbing machine 2118
- Wielogorski, J. W.  
Propagation of air compression waves in pipes: The influence of friction 2718
- Wienecke, R.  
Some diagnostic techniques useful for MHD-generator plasmas 3797
- Wierzbicki, T.  
Finite deflection of a circular viscoplastic plate subject to projectile impact 5122
- Wierzbicki, W.  
Some problems of statics and stability of building structures 3387
- Wiesner, D.  
Investigation of the flow in stationary parts of compressors using a new measuring principle for wall shear stresses 5400
- Wiezorke, B.  
See Loske, K. 8962
- Wiffen, R. D.  
See Heard, M. J. 4729
- Wightman, F. L.  
Binaural masking with sine-wave maskers 6599
- Wiin-Nielsen, A.  
A note on internal gravity waves in a hydrostatic compressible fluid with vertical wind shear 4765
- Wijdieks, J.  
See Manuel, A. R. 8855

- Wikholm, D. E.  
See Rubinstein, M. F. 7867
- Wilbanks, W. A.  
Detection of monaural signals as a function of interaural noise correlation and signal frequency 5745
- Wild, R. E.  
See Lackey, W. J. 7512
- Wilde, E.  
See Wadsworth, M. 3244
- Wilde, P.  
The torsion of thin-walled bars with variable cross section 6719  
Some properties of temperature stresses in the theory of membranes 8200  
See also Bielewicz, E. 8701
- Wilder, S. E.  
See Miller, C. G., III 1836
- Wilf, H. S.  
See Ralston, A. 3933
- Wilfinger, R. J.  
The resonator: A frequency selective device utilizing the mechanical resonance of a silicon substrate 952
- Wilke, C. R.  
See Wasan, D. T. 4556  
Porter, J. W. 9814
- Wilkes, D. F.  
Rolamite: A new mechanism 2556  
Rolamite: Part 1, Nature of the device 2557  
Rolamite: Part 2, Engineering 2558  
Rolamite: Part 3, Applications 2559  
Rolamite: Part 4, Hardware 2560  
Rolamite: A new mechanical design concept 7008
- Wilkins, D. R.  
A unified theoretical description of thermionic converter performance characteristics 4611
- Wilkins, G. S.  
Mass transfer driving forces in packed and fluidized beds 9102
- Wilkinson, D. L.  
A simple meter for measurement of low velocities in waterflow 4459
- Wilkov, M. A.  
Surface damage in fatigued aluminum by nucleation of gold 1015
- Willard, R. J.  
Microstructural techniques in the study of physical properties of rock 9498
- Willbanks, C. E.  
On similarity of a problem in concentration-dependent diffusion and flow in a free boundary layer 4403
- Willcock, B. K.  
See Sawko, F. 1043
- Willems, J. C.  
On the asymptotic stability of the null solution of linear differential equations with periodic coefficients 3950  
See also Willems, J. L. 3946
- Willems, J. L.  
Stability analysis of nonlinear control systems in the frequency domain 3946  
Stability criteria for nonstationary feedback systems 8349
- Willems, P. Y.  
See Nishikawa, Y. 8562
- Willett, J. E.  
See Babler, G. M. 9011
- Williams, C. J. H.  
See Naguleswaran, S. 1672  
Naguleswaran, S. 4126
- Williams, D.  
A convenient way of taking wing and fuselage flexibility into account in calculating undercarriage loads 200
- Williams, D. R.  
See Moran, F. 3973
- Williams, E. O.  
An etched manganin gage system for shock pressure measurement in a high noise environment 4183
- Williams, F. A.  
Linearized analysis of constant-property duct flows 7287  
A nonlinear diffusion problem relevant to desalination by reverse osmosis 9801
- Williams, G.  
Enhancement of heat and mass transfer in a stagnation region by free stream vorticity 540  
See also Sutra, S. P. 8057
- Williams, G. C.  
See Becker, H. A. 8011
- Williams, G. P.  
Thermal convection in a rotating fluid annulus: Part 3, Suppression of the frictional constraint on lateral boundaries 7433
- Williams, H. F.  
On the evaluation of functions of a real matrix 4822
- Williams, I. P.  
The resistance to the relative motion of gases 1187
- Williams, J.  
Aerodynamic interference effects with jet-lift V/STOL aircraft under static and forward-speed conditions 5423
- Williams, J. C., III  
Nonsteady stagnation point flow 6259  
See also Simoneau, R. J. 9641
- Williams, J. E. F.  
See Davies, H. G. 4659
- Williams, J. F.  
A force analysis of the hip joint 7463
- Williams, J. G.  
Calculation of the strain-energy release rates of cracked plates by an approximate method 2477  
Some observations on  $K_{Ic}$  determinations for round bars in tension and bending 8624
- Williams, M. L.  
The kinetic energy contribution to fracture propagation in a linearly viscoelastic material 9521
- Williams, M. M. R.  
See Kuscer, I. 7209
- Williams, N. J.  
Use of computer techniques for planning and organization in a steelplant 3024
- Williams, R. K.  
Radial heat flow thermal conductivity apparatus for measurements on sulfide and telluride melts 7281
- Williams, R. R.  
See Beaufait, F. 4268
- Williams, R. T.  
Quasi-geostrophic frontogenesis 717  
Atmospheric frontogenesis: A numerical experiment 1401
- Williams, T. A.  
See Gay, B. 2795
- Williams, T. J.  
See Anderson, J. S. 1845
- Williams, W. E.  
Two-dimensional mixed boundary-value problems in a wedge-shaped region 4829  
See also Hunt, J. C. R. 2028
- Williams, W. O.  
An extension of the concept of material symmetry 4037  
See also Gurtin, M. E. 4934  
Owen, D. R. 6213
- Williams, W. R.  
See Brown, G. M. 8249
- Williamson, J.  
Brittle fracture stress and temperature gradient tests on two ship steels 6099
- Williamson, J. L.  
An assessment of the frictional type strain gage 9542
- Willis, C. M.  
See Rhodes, M. D. 2154
- Willis, D. R.  
See Pao, Y.-p. 9702
- Willis, G. E.  
Confirmation and renumbering of the discrete heat flux transitions of Malkus 4523
- Willis, J. R.  
The stress field around an elliptical crack in an anisotropic elastic medium 4938  
Crack propagation in viscoelastic media 8625
- Willis, N. C., Jr.  
Analysis of three-fluid cross-flow heat exchangers 2794
- Willoughby, R. G.  
A mathematical analysis of supersonic inlet dynamics 2624
- Wills, J. A. B.  
Traversing orifice hot-wire probe pair for use in wall pressure correlation measurements 501
- Wilmoth, R. G.  
See Fisher, S. S. 5372
- Wilms, E. V.  
Motion of an elastic rod with external Coulomb friction 956

- Wilson, A. C. M.  
Fire-resistant fluids for general hydraulic and steam turbine systems 6448
- Wilson, D. J.  
See Goldstein, R. J. 5523
- Wilson, E. L.  
See Murray, D. W. 9380
- Wilson, E. M.  
See Swales, M. C. 5689
- Wilson, F. L.  
Statistical analysis of thermal shock in disks (flat faces insulated) 2938
- Wilson, F. W.  
Machining the space-age metals 8607
- Wilson, G. M.  
Thermodynamic properties of cryogenic fluids: Survey of existing data 524
- Wilson, H. B., Jr.  
Axisymmetric contact stresses about a smooth elastic sphere in an infinite solid stressed uniformly at infinity 7618
- Wilson, H. K.  
On the existence of a similarity solution for a compressible boundary layer 442
- Wilson, J. W.  
Analysis of numerical integration techniques for real-time digital flight simulation 788
- Wilson, K. H.  
See Lasher, L. E. 4643
- Wilson, N. W.  
An improvement on the Martinelli analogy 6393
- Wilson, R.  
An investigation of the feasibility of reshaping stick commands to improve hovering control of unstabilized jet-life aircraft 4625
- Wilson, R. A.  
A progress report on semiautomatic welding with the self-shielded flux-cored electrode 6209
- Wilson, R. J.  
Landing loads and accelerations of the XB-70-1 airplane 4620
- Wimberly, C. R.  
Convective heating of a yawed concave hemisphere in free molecule flow 6284
- Winckler, J. R.  
See Howard, R. L. 1928
- Windels, R.  
The circular ring in an elastic continuum 8699
- Wineinger, T. W.  
See Wadhwa, Y. D. 3447
- Wing, C. G.  
An experimental deep-sea-bottom gravimeter 1391
- Winkel, A.  
The measurement and assessment of dust concentrations at the working place with special consideration of the use of different dust samplers 4734
- Winkel, G.  
Flow investigations with the aid of the thermistor, as exemplified by its use with the sampling probe 6357
- Winkler, F.  
Dynamic tensile test of yarns: Part 10, Critical consideration of the concept of secant modulus 6150
- Winney, P. E.  
The thickness measurement of thin fluid films by a magnetic reluctance technique 3617
- Winnikow, S.  
The heat and mass transfer from a fluid sphere at large Reynolds and Peclet number 4552
- Winokur, A.  
Lateral loads in asymmetric multi-story structures 336
- Winokur, R. S.  
Sound reflection from a low-velocity bottom 8190
- Winsor, N.  
Geodesic acoustic waves in hydro-magnetic systems 5571
- Winston, B. P.  
See Hoelker, R. F. 1327
- Winston, M. M.  
A hovering investigation of an extremely flexible lifting rotor 497
- Winter, G.  
See Pekoz, T. B. 9387
- Winter, J. M.  
Development of improved throat inserts for ablative rocket engines 9857
- Winter, K. G.  
Measurements of skin friction on a cambered delta wing at supersonic speeds 7161
- Winter, O.  
Density and pressure fluctuations in gas fluidized beds 7404
- Wintonyk, B. L. M.  
See Nikiforuk, P. N. 1488
- Wintterlin, K.  
Reciprocating compressors 6353
- Wippermann, H. W.  
Realization of interval arithmetics within an ALGOL 60-system 4856
- Wirsching, P. H.  
See Likins, P. W. 4914
- Wirth, R. L.  
Analysis of a high-speed solenoid-actuated mechanism 8721
- Wissler, E. H.  
See Mahler, E. G. 6328
- Withfield, A.  
See Benson, R. S. 2729
- Witmer, E. A.  
Experimental and theoretical studies of explosive-induced large dynamic and permanent deformations of simple structures 6971  
See also Leech, J. W. 6048
- Witsenhausen, H. S.  
A counterexample in stochastic optimum control 1534
- Witte, A. F.  
A theoretical modal study for the lateral vibrations of bars having variable cross section and free end conditions 7758
- Witte, A. G.  
See Zoss, L. M. 3957
- Witte, K. J.  
A wedge in supersonic slightly shearing flow 7971
- Witte, L. C.  
An experimental study of forced-convection heat transfer from a sphere to liquid sodium 548  
An apparatus for obtaining extremely large heat flux densities 2806  
Heat transfer from spheres into sub-cooled liquid sodium during forced convection 7247
- Witte, W. G.  
See Graves, R. A., Jr. 574  
Walton, T. E., Jr. 1346
- Wittenberg, S.  
See Giglio, E. J. 7380
- Witteveen, J.  
Finite-difference calculus applied in the analysis of plates of panelwise uniform but arbitrary thickness (steps at contiguous panel-sides) 4091  
The behavior of steel structures in fires 4716
- Wittke, W.  
Stability calculation of slopes in jointed rock 3299
- Wittliff, C. E.  
Correlation of drag coefficients for sharp cones 1887
- Wittrick, W. H.  
Sidesway collapse modes for groups of vertical columns 5960  
Local buckling of long polygonal tubes in combined compression and torsion 6781  
A unified approach to the initial buckling of stiffened panels in compression 7734
- Witze, C. P.  
Flow about a growing sphere in contact with a plane surface 7059
- Wiweger, A.  
See Mazurkiewicz, Z. 9355
- Wlodarczyk, E.  
See Kaliski, S. 1701  
Kaliski, S. 8572
- Woelke, S.  
Dynamic stresses in an infinite cylinder produced by the action of a variable temperature 4713
- Woerner, J. L.  
Laminar flow in finitely wide rectangular channels 1801
- Wogulis, E. R.  
See Cebeci, T. 8002
- Wojciechowski, J.  
Layer of viscous liquid under a load 253
- Wolf, D.  
Normal vibration modes of stiff strings 8530  
See also Cooper, R. G. 1917



- Wolf, L., Jr.  
See Fejer, A. 4344
- Wolf, M.  
FIAT experimental gas turbine with power distribution between compressor and output shaft 3745
- Wolf, P.  
See Shahrokhi, F. 5496  
Shahrokhi, F. 9832
- Wolfenden, A.  
Autographically recording sensitive gas flowmeter 2739
- Woltersdorf, L. V.  
On the theory of the generalized Tricomi equation 3002
- Wolny, A.  
See Ciborowski, J. 569
- Wolter, H.  
Analysis of plane curved beams 8454
- Wong, H.  
See Horn, K. P. 1298
- Wong, J. S. W.  
See Miller, R. K. 7494  
Miller, R. K. 7495  
Nashed, M. Z. 9182
- Woo, S. H.  
Nonlinear oscillations of a bubble 2946
- Woo, T. C.  
Thermal stress problems in glass 2933
- Wood, D. J.  
A study of the response of coupled liquid flow-structural systems subjected to periodic disturbances 5437  
See also Lanzara, G. 639
- Wood, G. G.  
Alternative methods of computer control 8358
- Wood, I. F.  
See Munday, G. 3726  
Munday, G. 3727
- Wood, I. R.  
Selective withdrawal from a stably stratified fluid 4332
- Wood, M. D.  
Performance of lightly loaded gas journal bearings in the slip-flow and turbulent-flow regimes 4793
- Wood, M. N.  
See Williams, J. 5423
- Wood, M. T.  
See Warren, D. W. 6594
- Wood, N. B.  
The effect of condensation on hypersonic laminar heat transfer to cones 3687  
Hypersonic laminar heat transfer and boundary layer transition on blunted cones 9718
- Wood, R. H.  
Test of a multistory rigid steel frame designed in accordance with the 1964 Joint Report of the Institution and the Institute of Welding 6181  
The theory of the strip method for design of slabs 7883
- Wood, W. W.  
Experimental mechanics at velocity extremes: Very high strain rates 978
- Woodcock, D. L.  
Coordinated experimental and theoretical research on the oscillatory airfores for selected planforms at subsonic and supersonic speeds 9754
- Woodcock, J. W.  
See Sabatini, B. 7821
- Woodhead, M. A.  
See Porter, B. 8368
- Woodley, G. V.  
Standard software blocks ease DDC system design 820
- Woodmansee, W. E.  
Detection of material discontinuities with liquid crystals 6974
- Woods, B. A.  
See Jones, J. G. 6315
- Woods, J. D.  
Wave-induced shear instability in the summer thermocline 1399
- Woods, J. F.  
See Rozvany, G. I. N. 9575
- Woods, W. A.  
The formation of a shock wave in a blade passage of a partial admission turbine 9789
- Woodson, H. H.  
Electromechanical dynamics: Part 1, Discrete systems; Part 2, Fields, forces, and motion; Part 3, Elastic fluid media 3092
- Woodward, J. B., III  
Experimental boiler tube burnout as a function of downcomer resistance 4546
- Woolacott, R. G.  
Thermal aspects of hydrodynamic journal bearing performance at high speeds 3878
- Wooldridge, C. E.  
See Marxman, G. A. 4570
- Woollard, I. N. M.  
Solids mixing in fluidized beds 7403
- Woollatt, D.  
See Bradley, P. G. 1171
- Woolley, R. M.  
See Kirstein, A. F. 4497
- Woortman, J. J.  
See Jossen, W. P. A. 3863
- Workman, J. B.  
Arc structure in a magnetic annular discharge 9876
- Worley, W. J.  
See Wang, H.-C. 4075
- Worobjew, N. W.  
Calculating the service life of chain drives 6187
- Worth, J. H.  
Integrating flowmeter for measuring unimpaired oral and nasal airflow 10008
- Wosser, J. L., Jr.  
See Cannon, J. A. 2160
- Woyczynski, W. A.  
See Czekajewski, J. A. 4156
- Wozniak, C.  
The edge effect in lattice-type disks 2309
- Wozniak, Cz.  
On the buckling of polar bar networks 2389  
Introduction to dynamics of deformable bodies 6879
- Wragg, A. A.  
Mass transfer between a falling liquid film and a plane vertical surface 1240  
Free convection mass transfer at mesh electrodes 3682  
See also Ross, T. K. 6430
- Wray, P. J.  
Experimental approach to a theory of plasticity at elevated temperatures 9952
- Wren, R. J.  
Concept, design, and performance of the spacecraft acoustic laboratory 1370
- Wright, C. R.  
See Rigby, L. J. 507
- Wright, J. P.  
See Bleich, H. H. 4180
- Wright, K.  
See Barber, J. R. 7391
- Wright, P. M.  
An application of flowgraphs to the free vibration of structures 6843
- Wright, R. H.  
Approximation of the spanwise distribution of wind-tunnel-boundary interference on lift of wings in rectangular perforated-wall test sections 1180
- Wright, R. J.  
Effect of nonequilibrium dissociation on constant pressure laminar mixing 8953
- Wright, R. L.  
See Dillon, J. L. 9810
- Wright, R. N.  
BEF analogy for analysis of box girders 4989
- Wright, T. W.  
Impact on an elastic quarter space 9471
- Wrightson, J. M.  
See Klager, K. 7306
- Wrzesniowski, K.  
See Pietrzak, J. 2369
- Wu, C.-H.  
The strongest circular arch: A perturbation solution 4098  
See also Widera, O. E. 8409
- Wu, C. L.  
See Surkan, A. J. 7208
- Wu, C. M.  
See Roots, W. K. 1505
- Wu, F. T.  
See Teng, T. L. 2433
- Wu, J.  
Wind stress and surface roughness at air-sea interface 5686  
Mixed region collapse with internal wave generation in a density-stratified medium 7935
- Wu, J. C.  
Generalized Rayleigh's problem in viscous flows 398

- Wu, S. H.  
See Heinen, J. A. 6659
- Wu, S. M.  
Mathematical models of carbide tool crater surfaces 4782  
See also DeVries, M. F. 2466  
Jaeschke, J. R. 9511
- Wu, T. Y.-T.  
See Wu, J. C. 398
- Wu, Y.-C. L.  
"Limiting circles" of one-dimensional MHD channel flows 2847  
MHD generator in two-terminal operation 5593
- Wu, Y.-K.  
Wave excitation in compressible plasma and equivalence relations 3761
- Wuest, W.  
Flow problems of hypersonic wave riders 8817
- Wunderlich, W.  
On Burmester's focal mechanism and Hart's straight-line motion 3426
- Wunsch, C.  
Progressive internal waves on slopes 8847
- Wurtinger, H.  
Design and preliminary dimensioning of fiber glass supporting structures: Part 1, Calculation fundamentals 896
- Wurzbach, R.  
Formation of streams in blowing nozzles 1118
- Wyatt, P. J.  
Electromagnetic scattering by finite dense plasmas 5570
- Wynanski, I.  
The reattachment of an inclined two-dimensional jet to a flat surface in streaming flow 5306  
Jets and wakes in tailored pressure gradient 6255
- Wylie, E. B.  
Control of transient free-surface flow 7042  
See also Streeter, V. L. 8853
- Wyngaard, J. C.  
Structure of turbulence in a curved mixing layer 1131
- Wyon, D. P.  
See Lidwell, O. M. 2805
- Wyrwinski, J.  
See Pietras, F. 682
- X**
- Xirokostas, D.  
See Moran, F. 1543
- Y**
- Yablonsko, V. Ya.  
Some special features of a "machine/specimen" system with small-cycle loading 1749
- Yada, T.  
Measurement of friction loss of gear: Part 1, Examination of measuring method 3418
- Yahagi, T.  
Analysis of time-varying parameter systems by the state space method 4872
- Yajima, M.  
The effect of pressurization on the pseudo-brittleness in an iron/oxygen alloy 9513
- Yakimenko, I. P.  
Scattering of sound by an inhomogeneous cylinder 4674
- Yakovkin, I. B.  
See Bogdanov, S. V. 4155
- Yakovlev, G. A.  
The problem of thermal stability of fiberglass compressor blades in gas-turbine engines 2934
- Yakovlev, N. A.  
See Borschchevskii, Yu. T. 9096
- Yakovlev, S. P.  
See Tolokonnikov, L. A. 8449
- Yakovlev, Yu. P.  
Investigation of diathermance of solid materials at high temperatures of the radiator 566
- Yakovlev, Yu. V.  
See Limberg, E. A. 8861
- Yakushevskaya, K. E.  
The effect of refraction on the intensity of long-wave outgoing radiation 1229
- Yakushin, A. N.  
See Kogan, P. A. 4380
- Yalamov, Yu. I.  
Gas-kinetic analysis of the thermal slip velocity of a gas near a solid surface 1858
- Yalch, J. P.  
See Slot, T. 4940
- Yam, L. C. P.  
The inelastic behavior of simply supported composite beams of steel and concrete 8688
- Yamada, K.  
Microstructural approach to the study on the fatigue behavior of induction-hardened steel: Parts 1 and 2 6112
- Yamada, M.  
Study on the elastoplastic flexural behavior of reinforced concrete members subjected to axial load: Part 3, Moment-curvature relation under cyclic bending moment 2533
- Yamada, T.  
X-ray investigation of fatigue damage of metals with actual service loadings: Analysis for variation of X-ray diffraction breadth 2496
- Yamada, Y.  
Analysis of the bore-expanding test by the incremental theory of plasticity 117  
Plastic stress-strain matrix and its application for the solution of elastic-plastic problems by the finite element method 2330
- On the flow between eccentric rotating cylinders when the outer cylinder rotates 5725
- See also Tsuya, Y. 6581
- Yamagata, S.  
See Sawada, T. 5341
- Yamaguchi, K.  
See Kasuga, Y. 5714  
Kasuga, Y. 6089  
Kasuga, Y. 6090
- Yamaguchi, M.  
See Senoo, Y. 4444
- Yamamoto, K.  
Some tests on the combustion in the NSU-Wankel type rotary piston engine 3744  
See also Itoh, S. 8128
- Yamamoto, M.  
Two-dimensional photoelastic experiment made by gelatine gel 6129  
See also Yoshida, K. 120  
Suzuki, H. 2737
- Yamamoto, T.  
On the oscillations of "summed and differential types" under parametric excitation: Vibratory systems with damping 212  
The damping effect of unstable whirlings of a shaft carrying an unsymmetrical rotor 5079  
Doughnut-shaped directional pattern microphone 6600  
Summed and differential harmonic oscillations in nonlinear vibratory systems 8529  
On the unstable vibrations of a shaft with unsymmetrical stiffness carrying an unsymmetrical rotor 8538  
On the oscillations of summed and differential types of higher order under parametric excitation 9458
- Yamamoto, W. S.  
Models of the regulation of external respiration in mammals: Problems and promises 5747
- Yamane, M.  
See Koibuchi, K. 6947
- Yamanouchi, Y.  
On the statistical evaluation of the impulse response function 945  
On the effect of nonlinearity of response on calculation of the spectrum 2190  
See also Koseki, N. 1413
- Yamasaki, M.  
Numerical simulation of tropical cyclone development with the use of primitive equations 5695
- Yamasaki, T.  
Elastoplastic deflection of circular arch by complementary energy method 6756  
A general solution of influence lines applied to space frames with curved members 8697
- Yamashita, S.  
See Matsuo, S.-i. 6076
- Yamazaki, F.  
See Sudo, S. 244

- Yamazaki, R.  
On the propulsion theory of ships  
on still water 9141
- Yanagi, T.  
Behavior of electrostatic cylindrical  
probe in combustion products 8149
- Yanagimoto, S.  
Study of the mean roll pressure in  
the hot rolling process 9507
- Yanchenko, V. F.  
Determination of the velocity coef-  
ficient of combined nozzles 9690
- Yandell, W. O.  
Rolling resistance and stress distribu-  
tion associated with plastic  
hysteresis 3280
- Yang, C. H.  
The determination of explosion  
limits from a unified thermal and  
chain theory 8951
- Yang, H. K.  
See Yu, C. P. 8985
- Yang, J. N.  
See Shinozuka, M. 9191
- Yang, T.  
See Campbell, J. L. 10004
- Yang, T. L.  
On forced vibrations of a particle in  
the plane 5987  
Symmetry properties and normal  
mode vibrations 6803
- Yang, T. M.  
See Scharton, T. D. 6527
- Yang, W.-J.  
Unsteady compressible laminar  
boundary-layer flow over a flat  
plate 8005
- Yankovskii, M. I.  
Thermal stress due to nonuniform  
ingot heating with consideration  
of plastic deformation 2122
- Yano, T.  
See Aratani, T. 8051
- Yanovskii, Yu. G.  
Dynamic properties of polymers in  
the fluid state 3439
- Yanushkevich, V. A.  
Mechanism of high-temperature  
creep of metals with high stacking-  
fault energy 6543
- Yanyecic, G. A.  
See Faeth, G. M. 3722
- Yao, J. T. P.  
See Ju, F. D. 6123
- Yarimci, E.  
Rotation gages for structural re-  
search 3405
- Yaroshevich, M. I.  
A long-period galvanometer to re-  
cord seismic processes 5685
- Yarov-Yarvoi, M. S.  
Integration of regularized equations  
of the two-body problem 5837  
Solution of regularized equations  
in perturbation theory 7354  
Analytical theory of motion of a  
spacecraft to the Moon 9910
- Yartsev, P. I.  
See Koshelev, L. I. 285
- Yaryshev, N. A.  
See Ispiryay, R. A. 571
- Yasin, S.  
See Elizarov, D. P. 3820
- Yasuda, T.  
See Kobayashi, K. 1446  
Saito, K. 4686  
Fujisawa, T. 8370
- Yasutomi, R.  
See Sudo, S. 244
- Yasutomi, Z.  
See Miyai, Y. 7157  
Kida, T. 9744
- Yataev, M.  
See Bekbaev, S. 4003
- Yatsui, K.  
Ultrasonic wave amplification in  
gaseous plasmas 680
- Yau, W.-F.  
A mixed problem for an elastic  
ring 6704
- Yaushev, I. K.  
Numerical evaluation of one-dimen-  
sional nonsteady gas flow in chan-  
nels with a jump in the cross-  
sectional area 9697
- Yavorskaya, I. M.  
The scattering of high-frequency  
plane longitudinal waves obliquely  
incident on cylinders 963
- Yazaki, A.  
Open water test series of modified  
AU-type four- and five-bladed pro-  
peller models of large area ratio  
Roughness allowance and the scale  
effect on the wake fraction of  
supertankers 1408
- Yeakley, L. M.  
See Kana, D. D. 8557
- Yearn, J. A.  
See Maude, A. D. 2608
- Yeh, C.  
Diffraction of sound waves by a  
moving fluid cylinder 9924
- Yeh, H. C.  
See McNally, R. N. 3474  
Liu, B. Y. H. 4730
- Yeh, H.-H.  
On the general theory of optimal  
processes 8363
- Yen, B. T.  
See Mueller, J. A. 270
- Yen, D. H. Y.  
Dynamic response of an infinite  
plate subjected to a steadily mov-  
ing transverse force 1698
- Yen, Y.-C.  
Onset of convection in a layer of  
water formed by melting ice from  
below 6399
- Yeomans, K. A.  
See Sabatini, B. 7820  
Sabatini, B. 7821
- Yih, C.-S.  
Stability of a horizontal fluid inter-  
face in a periodic vertical electric  
field 1904
- Fluid motion induced by surface-  
tension variation 3448  
A class of solutions for steady  
stratified flows 7047
- Yim, B.  
Higher order wave theory of ships 3860
- Ying, S.-J.  
See Emmons, H. W. 4560
- Yogananda, C. V.  
On a mixed boundary value prob-  
lem of a cylindrical hole in an  
elastic matrix 2299
- Yokobori, T.  
The interaction of parallel elastic  
cracks and parallel slip bands re-  
spectively based on the concept  
of continuous distribution of dis-  
locations: Part 1, Parallel slip  
bands and their stress concentra-  
tion 2478  
The interaction of parallel elastic  
cracks and parallel slip bands re-  
spectively based on the concepts  
of continuous distribution of dis-  
locations: Part 2, Parallel elastic  
cracks and their effect on brittle  
fracture strength 2479  
Fatigue crack propagation behavior  
of mild steel and high strength  
steels 2485  
A criterion for fatigue fracture  
under multi-axial alternating stress 2488  
Proceedings of the First Inter-  
national Conference on Fracture,  
Vol. 1, Vol. 2, Vol. 3 6096  
Brittle fracture with interaction be-  
tween elastic crack and nearby  
slip band 8618  
Criteria for nearly brittle fracture 8620  
See also Kamei, A. 1723
- Yokoo, K.  
Scale effect experiment on tanker  
models 1409  
See also Yazaki, A. 1408
- Yonezawa, H.  
Elastic buckling of plate girders  
from pure bending 919  
On the plastic analysis of curved  
grillage girders: Part 2, Curved  
bridges under a load uniformly dis-  
tributed over cross girder 7879  
See also Konishi, I. 4106
- Yoon, P. S.  
See Morris, R. C. 9216
- Yore, E. E.  
Identification of dynamic systems  
by digital computer modeling in  
state space 1495
- Yoshida, K.  
The thickness dependence of plastic  
behavior of copper whiskers 120
- Yoshida, M.  
See Yokobori, T. 8618
- Yoshida, S.  
See Oguchi, A. 6975
- Yoshida, T.  
See Taira, S. 6115
- Yoshikawa, K. K.  
Linearized theory of stagnation  
point heat and mass transfer at  
hypersonic speeds 8781

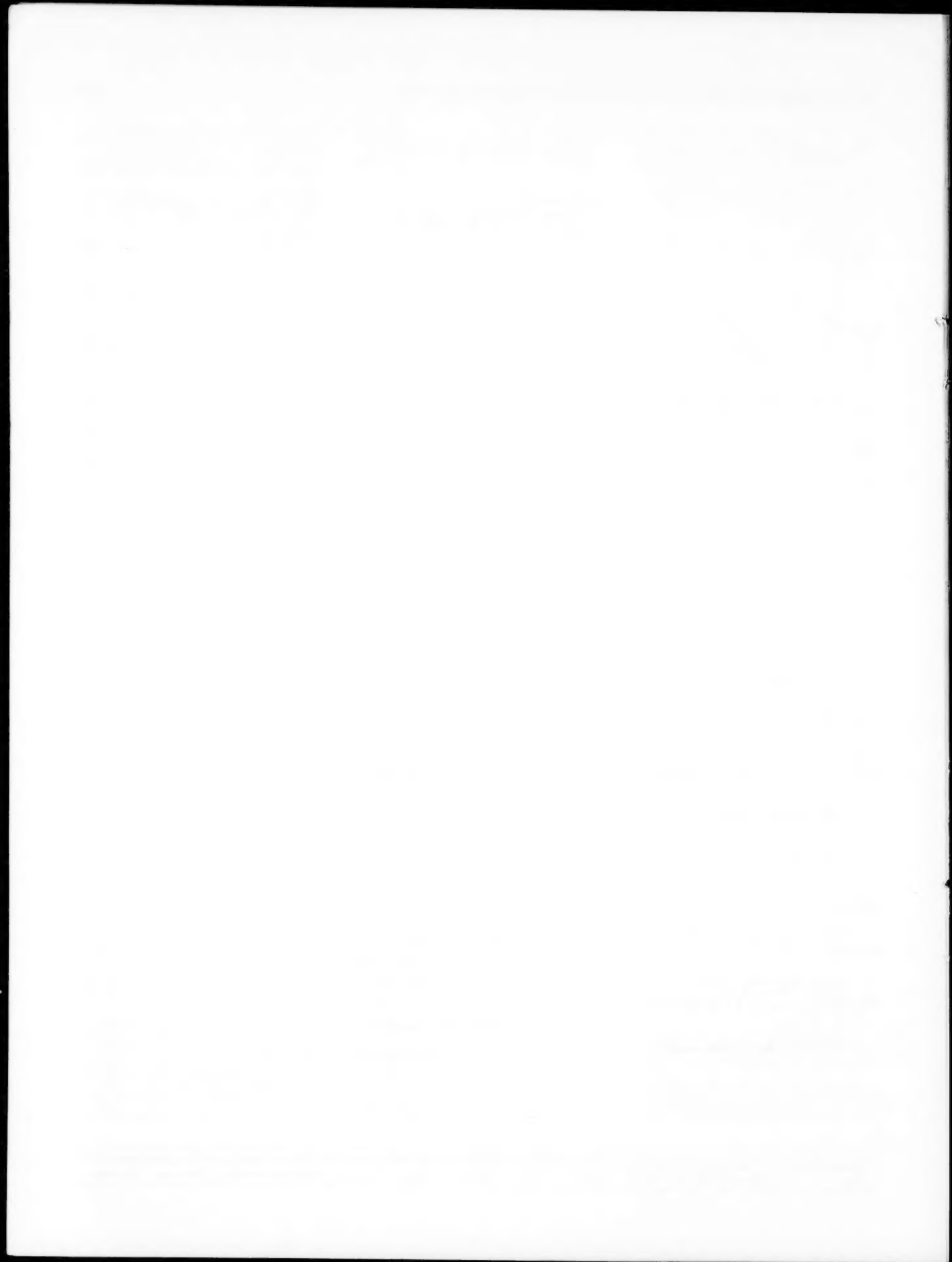
- Yoshimura, N.  
See Yamada, Y. 2330
- Yoshimura, T.  
See Yokobori, T. 2488
- Yoshinaga, Y.  
See Ohmori, M. 6936  
Ohmori, M. 8438
- Yoshioka, Y.  
See Taira, S. 300  
Terasawa, M. 6954
- You, Pi. M.  
See Uchida, H. 5518
- Youden, W. W.  
Computer literature bibliography:  
Vol. 2, 1964-1967 3023
- Youla, D. C.  
On the comparison of the sensitivi-  
ties of open-loop and closed-loop  
optimal control systems 4888
- Young, A. C.  
An analog analysis of lung ventila-  
tion distribution 4805  
See also Scher, A. M. 2986
- Young, A. D.  
See Harris, H. D. 5390  
Myring, D. F. 8000
- Young, C. P., Jr.  
Analysis of the aeroelastic diver-  
gence of two experimental un-  
guided launch vehicles 1320
- Young, D. F.  
Effect of a time-dependent stenosis  
on flow through a tube 1437
- Young, G.  
See Nelson, P., Jr. 3752  
Nelson, P., Jr. 6688
- Young, G. K.  
Operational hydrology using residu-  
als 8242
- Young, G. R.  
See Hoffman, L. H. 9199
- Young, J. G.  
BWRA experience in the welding of  
aluminum-zinc-magnesium alloys 6206
- Young, R. W.  
On estimating noisiness of aircraft  
sounds 9056
- Younger, J. S.  
See Smith, A. A. 3451
- Younis, M. I.  
See O'Shea, R. P. 3053
- Youshaw, R. A.  
The video tape recording of ultra-  
sonic test information 1028
- Youtz, E. M.  
See Snyder, H. A. 6565
- Yu, C. P.  
Thermal instability of a magneto-  
fluid in a vertical rectangular chan-  
nel 1266  
Effect of wall conductances on con-  
vective magnetohydrodynamic  
channel flow 8985
- Yu, H. S.  
Experiments on two-component  
stratified flow in a horizontal duct 8741  
See also Sparrow, E. M. 3119
- Yu, S. L.  
See Brutsaert, W. 2155
- Yu, Y.-Y.  
See Hunter, B. L. 6534  
Strock, R. R. 6764  
Ren, N. 9423
- Yudaev, B. N.  
Ablation of a plate in a supersonic  
flow of gas 8946
- Yuen, M.-C.  
Nonlinear capillary instability of a  
liquid jet 3586
- Yuferov, V. B.  
See Busol, F. I. 417
- Yuki, T.  
See Shiomi, H. 8655
- Yumasheva, M. A.  
The deformation of a nonlinear  
elastic anisotropic wedge exposed  
to a moment at the apex 7592  
See also Lomakin, V. A. 109
- Yumlu, V. S.  
Prediction of burning velocities of  
saturated carbon monoxide-air  
flames by application of mixing  
rules 582
- Yura, J.  
See Toprac, A. A. 9615
- Yura, J. A.  
See Yarmici, E. 3405
- Yushchenko, A. A.  
See Mozharovsky, N. S. 6095
- Z**
- Zaalouk, M. G.  
See Peterson, W. C. 1239
- Zabolotnyi, L. V.  
Effect of turning on the state of  
surface layers of sintered anti-  
friction materials 3316
- Zaborov, V. I.  
See Gorenstein, I. V. 6515
- Zabreiko, P. P.  
Integral equations 16
- Zabylin, M. I.  
Interference of the vibrations of  
separately-standing foundations in  
the simultaneous running of a  
group of machines 6846
- Zacek, F.  
See Musil, J. 4606
- Zadayan, M. A.  
Plane and axisymmetrical flow of  
plastic mass between rough moving  
surfaces 884
- Zagik, S. E.  
See Brodskii, V. B. 1311
- Zahar, R. V. M.  
See Deprit, A. 1326
- Zaharescu, E.  
Dimensioning methods of backfilter  
parameters 7819
- Zahorski, S.  
A simple model of nonsimple elastic  
media: Application to high-poly-  
mer networks 5887
- Zairov, D. Z.  
Effect of the character of the per-  
turbance on the dynamics of con-  
trol 7585
- Zaiser, J. N.  
See Ames, W. F. 7751
- Zaitsev, O. V.  
See Nazarenko, P. V. 6962
- Zajic, V.  
Heat transfer to water in the region  
of surface boiling inception in a  
tube 565
- Zak, M. A.  
On some dynamic phenomena in  
flexible fibers 2428
- Zakai, M.  
On the ultimate boundedness of  
moments associated with solutions  
of stochastic differential equations 1466
- Zakharin, V. M.  
Diffusivity of the field and arrival  
rate of high-level reflections 8180
- Zakharov, G. P.  
A simplified method for determin-  
ing extreme values of heat flux and  
output of vacuum evaporators 3707
- Zakheim, J.  
See Galerne, R. 7349
- Zakhidov, R. A.  
Thermal conditions in the cavity  
radiation receivers of mirror-type  
solar energy equipment, as derived  
from the structure of the radiation  
field 3688  
Calculation of the energy distribu-  
tion in the radiation field of reflec-  
tor-type solar energy devices 6407
- Zakin, J. L.  
See Hershey, H. C. 357  
Patterson, G. K. 6216
- Zakirov, G. V.  
Stability of a sandwich conical shell  
with a light filler 5976  
Stability of a sandwich conical shell  
in the case of external pressure 5977
- Zakkay, V.  
Some remarks on diffusion proces-  
ses in turbulent mixing 461  
Laminar boundary layer with con-  
stant wall shear stress 4408  
The design and operation of a high  
Mach number-Reynolds number fa-  
cility 8884  
See also Hoydysh, W. G. 6297  
Rotta, N. R. 8808  
Fox, H. 9683
- Zakovorotnyaya, L. G.  
A representation of the equations  
for the momentless equilibrium of  
convex shells 5940
- Zakrzhevskii, A. E.  
The problem of nonstationary gas  
flow through a Laval nozzle 5363
- Zakrzhevskii, M. V.  
Forced oscillations of an unbalanced  
rotor on elastic supports with a  
nonlinear characteristic 9440
- Zames, G.  
Stability conditions for systems with



- James, G.** (*Continued*)  
monotone and slope-restricted nonlinearities 8352  
*See also* Freedman, M. 5805
- Zamikhovskii, V. S.**  
Effect of calorizing on the fatigue and corrosion-fatigue strength of steel 45 3346
- Zamiryakin, L. K.**  
Effect of residual stresses on the proneness of austenitic chromium-nickel steels to stress-corrosion cracking 3349
- Zamparo, O. J.**  
Exciter-specimen interface coupling 5113
- Zanelli, S.**  
*See* Nencetti, G. F. 3833
- Zanin, C.**  
On the motion of a high energy particle under special forces 5844
- Zaoui, J.**  
*See* Combes, G. 1909
- Zapf, H.**  
*See* Hesse, S. 8662
- Zapfe, H.**  
An ion diffusion pump without priming pump for high vacuum leak detection 1164
- Zaraiskii, S. I.**  
Using an arrangement of convective heating surfaces with divided gas passes in large boiler units 2799
- Zareski, D.**  
Direct determination of stresses in plane elastic problems without calculation of their function 88
- Zaretsky, E. V.**  
EHD lubrication 3879  
Rolling-element bearing life from 400°F to 600°F 4794  
*See also* Bamberger, E. N. 2172  
Parker, R. J. 2489
- Zarghamee, M. S.**  
Stability of spaceframes 157
- Zaruba, J.**  
The effect on water hammer of solid particles in pipelines 3590
- Zarutsky, V. A.**  
Thermal elastic stresses in ribbed cylindrical shells 5637  
*See also* Zhilin, P. A. 9375
- Zaslavskii, G. M.**  
Stochastic instability of nonlinear oscillations 3222  
Stability of plasma in the presence of fluctuating parameters 3767
- Zaslavskii, S. A.**  
*See* Ivanov, V. A. 8970
- Zaslavsky, A.**  
Models for elastic buckling behavior 6778
- Zaslavsky, Yu. S.**  
New results of investigations into mechanism of action of lubricating oil additives 736
- Zauderer, B.**  
Electrical characteristics of a linear nonequilibrium, MHD generator 2874
- Discharge structure and stability of a nonequilibrium plasma in a magneto-hydrodynamic channel 9018
- Zawidzki, J.**  
On relations along characteristics in general plane states of nonhomogeneous plastic media 2338  
On the normal form of equations of plane dynamic flow of incompressible plastic media 6739
- Zaytsev, S. G.**  
Thermodynamic parameters of cesium behind incident and reflected shock waves 626
- Zborowski, A.**  
Analysis of ship resistance tests on small models with particular regard to the correlation of test results 8261
- Zdravkovich, M. M.**  
Smoke observations of the wake of a group of three cylinders at low Reynolds number 3506
- Zechman, R. E.**  
*See* White, J. E. 4754
- Zederbaum, J.**  
Horizontal stiffness of bridge deck on elastic bearing 2543
- Zee, C.-H.**  
Low tangential thrust trajectories: Improved first-order solution 1334
- Zeger, L.**  
Test instrumentation collects skull/dashboard impact data 8299
- Zeh, D. W.**  
Convective diffusion in rotating disk systems with an imperfect semi-permeable interface 8944
- Zehr, J.**  
Preventing dust explosions during drying, conveying, mixing and storage 7292
- Zein, H. M.**  
*See* Lessen, M. 1117
- Zeldovich, Ya. B.**  
On an effect stabilizing the curved laminar flame front 6434
- Zeller, J. R.**  
Design and analysis of a modular servoamplifier for fast-response electrohydraulic control systems 1510
- Zellerer, E.**  
Contribution to the calculation of pressure vessels with ring-stiffeners 7000
- Zeman, J.**  
Problems of transverse load bending of a straight beam 6753
- Zeman, J. L.**  
A method for the solution of stochastic problems in linear thermoelasticity and heat conduction 2119
- Zempel, R. E.**  
*See* Softley, E. J. 9717
- Zemtsov, Yu. K.**  
Measuring the electron temperature of a powerful pulsed discharge 6480
- Zender, G. W.**  
Compressive properties and column efficiency of metals reinforced on the surface with bonded filaments 1035
- Zerkle, R. D.**  
The effect of liquid solidification in a tube upon laminar-flow heat transfer and pressure drop 8079
- Zeytounian, R.**  
First-order integrals of the steady-state equations of motion for axisymmetric flow of a perfect fluid 1079
- Zežula, R.**  
*See* Bartosek, V. 8980
- Zgrablich, G.**  
Elastic vibrations in crowns of thin circular plates: Part 2 3238
- Zharkov, V. N.**  
Harmonics of torsional vibrations of the Earth 3241
- Zhdan, V. A.**  
Shells of revolution on an elastic contour 145
- Zhekov, K. A.**  
The use of the grid method in the strength analysis of low-aspect orthotropic wings 7910
- Zheleznikov, M. A.**  
Stress and deformation in a beam-plate on elastic foundation 4196
- Zheleznorovich, V. A.**  
The theory of constructing models of continuous media 4823
- Zherdev, G. S.**  
*See* Fursov, A. P. 8961
- Zhigalko, Yu. P.**  
Application of an electronic digital computer to the investigation of the stress-strain state of elastic cylindrical shells under the action of a concentrated load 9363
- Zhikharevich, M. S.**  
*See* Vysokostrovskaya, E. A. 939
- Zhilin, P. A.**  
Shells of zero Gaussian curvature, with meridional ribs 1646  
Axisymmetrical deformation of cylindrical shell reinforced by ribs 3184  
Survey of the fundamental problems of the theory of ribbed shells 9375
- Zhil'tsov, K. K.**  
On frequency properties of certain nonlinear logical elements 2228
- Zhinzher, N. I.**  
The destabilizing effect of friction on the stability of nonconservative elastic systems 8495
- Zhitkovskii, Yu. Yu.**  
Reflection and scattering of sound from the ocean bottom: Review 1363  
The scattering of sound by inhomogeneities of the top layer of the ocean bottom 4685
- Zhuber-Okrog, G.**  
Calculation of wave propagation in gases and comparison with experimental results in a shock tube 5343
- Zhukauskas, A.**  
Heat transfer in banks of tubes with crossflow of fluid 1991  
*See also* Gyadgaudatte, E. A. 436

- Zhluktenko, V. I.  
See Yakovlev, G. A. 2934
- Zhokhovskii, M. K.  
See Dolinskii, E. F. 3383
- Zhukhovitskii, E. M.  
See Gershuni, G. Z. 3683  
Gershuni, G. Z. 4352  
Gershuni, G. Z. 4525
- Zhukovskii, M. I.  
Aerodynamic calculation of the flow in axial turbines 5443
- Zhukovskii, V. G.  
Choice of optimum optron parameters 9252
- Zhuravlev, P. V.  
See Davydov, A. I. 8869
- Zhuravskaya, O. A.  
Calculation of plates with a free edge 7685
- Zhvalyev, V. F.  
See Styro, D. B. 9127
- Zhwrauel, A. E.  
See Kostyuk, Z. D. 3354
- Ziegler, F.  
Propagation of plane waves in a half-space due to random disturbances with coupling of the stress and temperature field 2121  
See also Achenbach, J. D. 3333
- Ziegler, H.  
Principles of structural stability 2379  
See also Sayir, M. 8429
- Ziegler, P. N.  
Single and dual axis tracking as a function of system dynamics 3899
- Ziegra, G. A.  
See Pakstys, M., Jr. 5248
- Zielinski, L.  
Some problems of measuring non-steady temperature by resistance method 5513
- Zielinski, S.  
See Wozniak, Cz. 2389
- Zien, H. M.  
See Lessen, M. 2852
- Zien, T.-F.  
See Cole, J. D. 9746
- Zienkiewicz, H. K.  
Establishment of the bow-wave in the supersonic flow of carbon dioxide past a sphere 3519
- Zienkiewicz, O. C.  
Stress analysis of rock as a "no tension" material 3296  
A numerical method of viscoelastic stress analysis 8419  
See also Cheung, Y. K. 3406  
Anderson, R. G. 6815
- Zierop, J.  
The shockwave stand-off distance for a pointed slender profile in transonic flow 5335  
A law of similarity for unsteady condensation processes in supersonic nozzles 5356  
Determination of the onset of water vapor condensation in air expanding through supersonic nozzles 7988  
See also Heynatz, J. T. 1877
- Ziering, S.  
Thermal escape from planetary atmospheres in the presence of a gravitational field 4488  
See also Hu, P. N. 2841
- Zigany, F.  
Calculation of the circular cutter for screw spindles 5445
- Zikeev, L. N.  
See Kalatourov, B. A. 2525
- Zilitinkevich, S. S.  
On the dynamic and thermal interaction between the atmosphere and the ocean 3848
- Zimmerly, R. D.  
See Jaeschke, J. R. 9511
- Zimmermann, F.  
See Krieb, K. H. 4484
- Zimmermann, K. H.  
See Kutzscher, E. W. 6155
- Zingali, A.  
An elastic analysis of nonlinear structures: Part I, Presupposition theory 313
- Zinn, B. T.  
Periodic finite-amplitude oscillations in slowly converging nozzles 8784  
The nozzle boundary condition in the nonlinear rocket instability problem 8788
- Zinoviev, V. A.  
See Artobolevskii, I. I. 4301  
Artobolevskii, I. I. 8723
- Zipser, E. J.  
See Ichiye, T. 3855
- Zitny, K.  
On the theory of the magneto-hydrodynamic boundary layer 629
- Zitron, N. R.  
Multiple scattering of elastic waves by two arbitrary cylinders 962
- Zlotnick, M.  
Nonequilibrium sublimation in a boundary layer at Lewis number = 1 575
- Zmachinskii, A. V.  
Determination of optimal gas velocities in convective heating surfaces of staggered tubes 9838
- Zmeikov, V. N.  
See Ustimenko, B. P. 9659
- Zoby, E. V.  
Empirical stagnation-point heat-transfer relation in several gas mixtures at high enthalpy levels 1120  
Effects of corner radius on stagnation-point velocity gradients on blunt axisymmetric bodies 4373
- Zoerb, E. G.  
Liquid fluidics controls flight suit temperature 3069
- Zolotarev, L. M.  
Method for approximation of the isentropic curve in two-phase single component systems 5455
- Zolotukhin, N.  
See Getmanskii, A. 1744  
Getmanskii, A. 7595
- Zolotukhin, V. K.  
Restricted torsion of caissons taking the working of the diaphragm into account 146  
Local torque moment and forces in the flanges of caissons 4285  
Calculation of a caisson for restricted torsion due to the action of a local moment 8700
- Zorski, H.  
On the motion of concentrated defects in elastic media 4029  
See also Unz, H. 2217
- Zosi, G.  
Diffractometric determination of residual stresses in vacuum deposited thin films 2513  
A focussing technique for the diffractometric determination of residual stresses 5212
- Zoss, L. M.  
Nonlinear design improves analog 3-mode controller 3957
- Zuber, N.  
See Kroeger, P. G. 4538  
Kroeger, P. G. 8087
- Zubkov, A. I.  
See Voytenko, D. M. 449
- Zuckerwar, A.  
Internal friction of germanium below room temperature 210
- Zuev, A. I.  
Three-layer scheme for numerical integration of the equations of gasdynamics and the nonlinear equation of thermal conductivity 412
- Zuev, B. M.  
See Surkin, R. G. 3268
- Zuk, J.  
Computer program for viscous, isothermal compressible flow across a sealing dam with small tilt angle 8774  
Investigation of isothermal, compressible flow across a rotating sealing dam: Part I, Analysis 9660
- Zumwalt, G. W.  
See Walker, W. F. 1838  
Damkevala, R. J. 5339
- Zung, L. B.  
Flow induced in fluid-particle suspension by an infinite rotating disk 8762
- Zunnunov, N. Z.  
Integration of the equations of motion of holonomic nonconservative systems 70
- Zunz, C. J.  
See Arup, O. N. 7906
- Zuranski, J.  
Wind loading of some kind of roof structure 1049
- Zurbrick, J. R.  
The mystery of reinforced plastics variability: Nondestructive testing holds the key 3386
- Zverev, V. A.  
Measurement of the scattering of sound by sound in the superposition of parallel beams 6523
- Zvolinskii, N. V.  
Determination of the unloading wave in a particular case 3259  
Reflection and refraction of a plane

- |  |      |   |      |  |      |
|--|------|---|------|--|------|
| plastic wave in the presence of a<br>boundary plane  | 4173 | Zweig, A.<br>Buckling analysis of one-story<br>frames   | 5046 | tain joint system incorporating four<br>pull rods                              | 3430 |
| Zvolenskii, S. T.<br>Study of slumping deformations of<br>loess supporting soils by means of<br>radioactive isotopes | 3289 | Zyczkowski, M.<br>Optimum design of point-reinforce-<br>ment of cylindrical shells with<br>respect to their stability | 923  | Limit state of a thick-walled tube<br>under internal pressure and bending      | 6162 |
| Zwahlen, B.<br>See Bazley, N.  | 933  | Foundations of mechanics of a cer-  |      | Zyskind, G.<br>Linear models and analysis of vari-<br>ance research procedures | 785  |
|  |      |   |      | Zyszkowski, W.<br>See Rafalski, P.   | 4505 |



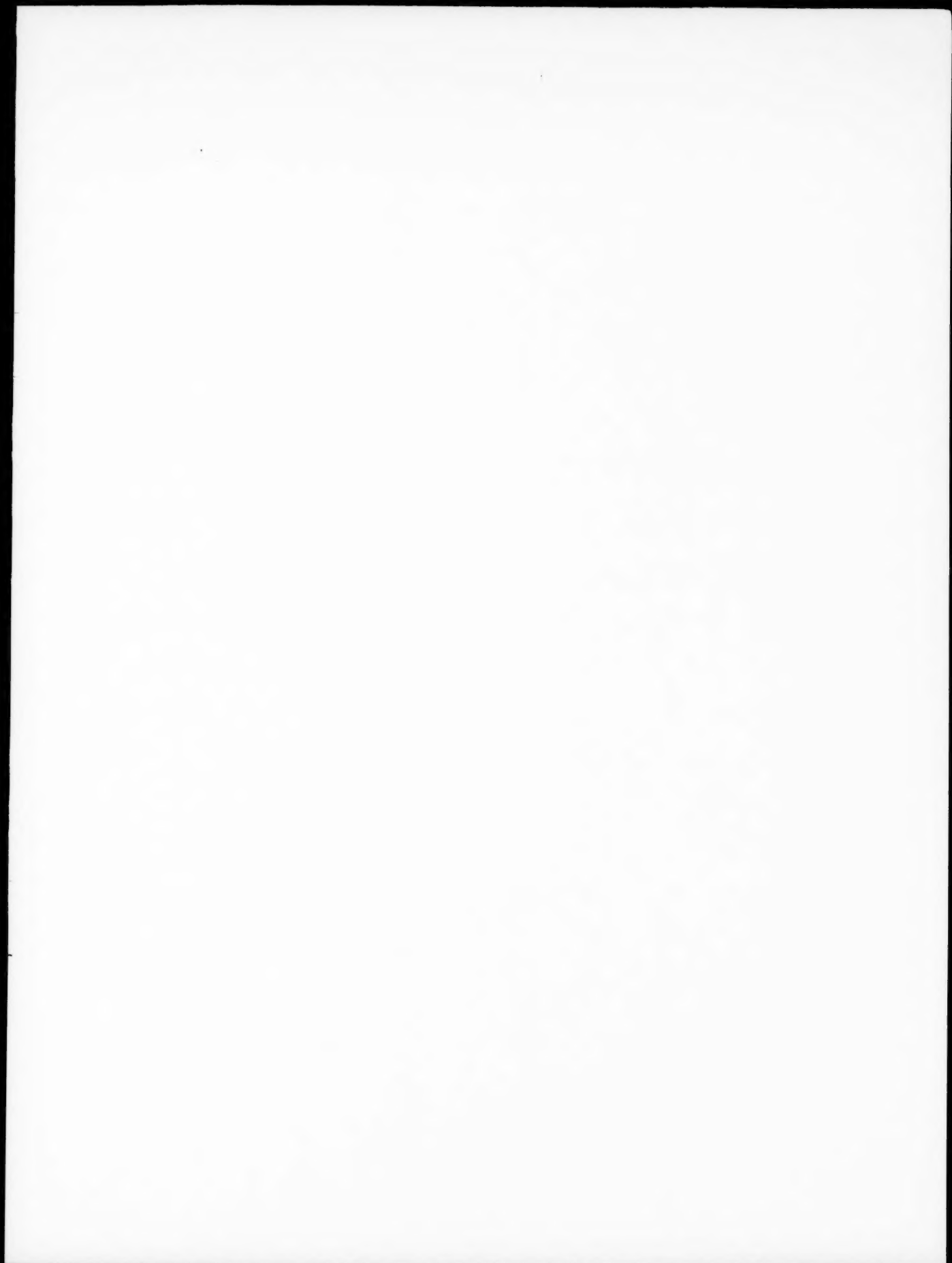


# Supplemental Journal Listing

The following publication list supplements the cumulative List of Publications Scanned for Applied Mechanics Reviews which appeared in the 1968 Annual Index issue. This Supplement contains 82 entries of which 72 are new titles to AMR and 10 are journals published under new or revised titles. Former titles will be shown with the new title entry.

- Acta Polytechnica Scandinavica, Chemistry including Metallurgy Series. *Helsinki*
- Aeronautical Research Committee, CSIR, ARC Technical Note. *Bangalore, India*
- Annales Scientifiques de l'Universite de Besancon, 3rd Series, Mecanique et Physique Theorique. *Besancon, France*
- Astronomy and Astrophysics. *New York*
- Banyaszati es Kohaszati Lapok Kohaszat. *Budapest*
- BCURA Monthly Bulletin. *Leatherhead, U.K.* (Formerly: British Coal Utilization Research Association, Monthly Bulletin)
- Biometrische Zeitschrift. *Berlin*
- Biophysics. (Translation of Biofizika by Pergamon Press, *New York*)
- Building, Australia's National Building Journal. *Chippendale*
- Bulletin of JSAE. *Tokyo*
- Bulletin of the Australian Mathematical Society. *St. Lucia, Australia*
- Civil Engineering in Japan. *Tokyo*
- Control & Instrumentation. *London* (Formerly: Control)
- Electrical Engineering in Japan. (Translation of Denki Gakkai Zasshi by the Institute of Electrical and Electronics Engineers, *New York*)
- EMPA Publikationen. *Dubendorf, Switzerland*
- Engineering Education. *Washington, D.C.*
- Euro Spectra. *Brussels* (Formerly: Euratom: Review of the European Atomic Energy Community)
- FOA Reports. *Stockholm*
- Formage des Matériaux. *Paris*
- Godishnik na Visshite Tekhnicheski Uchebni Zavedeniya, Fizika. *Sofia*
- Godishnik na Visshite Tekhnicheski Uchebni Zavedeniya, Matematika. *Sofia*
- Godishnik na Visshite Tekhnicheski Uchebni Zavedeniya, Prilozhna Mekhanika. *Sofia*
- Heat Transfer-Soviet Research. *New York*
- IEEE Transactions on Geoscience Electronics. *New York*
- Ingenieur- und Tiefbau. *Berlin*
- Institut fur Bauwissenschaftliche Forschung. *Zurich*
- Institut fur Hydraulik und Gewasserkunde, Technische Hochschule Munchen, Mitteilungen. *Munich*
- InterDok, Directory of Published Proceedings. *White Plains, New York*
- International Journal for Numerical Methods in Engineering. *Chichester, U.K.*
- Isotopes and Radiation Technology. *Washington, D.C.*
- Izvestiya Akademii Nauk SSSR, Mekhanika Tverdogo Tela. *Leningrad* (Formerly: Inzhenernyi Zhurnal Mekhanika Tverdogo Tela)
- Journal of Adhesion. *Stamford, Conn.*
- Journal of Cellular Plastics. *Stamford, Conn.*
- Journal of Elastoplastics. *Stamford, Conn.*
- Journal of the American Helicopter Society. *New York*
- Journal of the Institution of Engineers, India, Hindi Section, HI. *Calcutta*
- Journal of the Institution of Engineers, India, Public Health Engineering Division, PH. *Calcutta*
- Journal of the Research Institute of Science and Technology, Nihon University. *Tokyo* (Formerly: Journal of the Research Institute of Technology, Nihon University)
- Journal of the Royal Statistical Society, Series A, General. *London*
- Journal of the Royal Statistical Society, Series B, Methodological. *London*
- Journal of the Society of Naval Architects of Japan. *Tokyo*
- Journal of Thermal Analysis. *London*
- JPT, Journal of Petroleum Technology. *New York* (Formerly: Journal of Petroleum Technology)
- Konstruktiver Ingenieurbau-Berichte. *Essen*

- Kongelige Danske Videnskabernes Selskab, Matematisk-fysiske, Meddelelser. *Copenhagen* (Formerly: Meddelelser, Kongelige Danske Videnskabernes Selskab, Matematisk-fysiske)
- Mathematical Systems Theory. *New York*
- Mechanical Sciences Abstracts. *London*
- Mechanics of Solids. (Translation of Inzhenernyi Zhurnal Mekhanika Tverdogo Tela by Faraday Press, *New York*)
- Mechanine Technologija. *Vilnyus, Lithuanian SSR*
- Medical & Biological Engineering. *New York*
- Medical Research Engineering. *Little Falls, N. J.*
- Mitteilungen Ingenieur- und Tiefbau. *Leipzig*
- MTZ, Motortekhnische Zeitschrift. *Stuttgart* (Formerly: Motortekhnische Zeitschrift)
- Muszaki Tudomány. *Budapest*
- New Techniques, A, Automatic Control and Industrial Electronics. *Zurich*
- New Techniques, B, Nuclear Engineering. *Zurich*
- Ocean Engineering. *New York*
- Operations Research. *Baltimore, Maryland*
- Pattern Recognition. *New York*
- Periodica Polytechnica, Civil Engineering, Stroitelstva. *Budapest*
- Polish Machinery News. *Warsaw*
- Proceedings of the Japan Society of Civil Engineers. *Tokyo* (Formerly: Transactions of the Japan Society of Civil Engineers)
- Quarterly of the Colorado School of Mines. *Golden, Colo.*
- Rendiconti di Matematica, Serie 6. *Rome* (Formerly: Rendiconti di Matematica e delle sue Applicazioni)
- Rivista Italiana di Geotecnica. *Napoli*
- Rock Mechanics. *New York*
- Roorkee University Research Journal. *Roorkee, India*
- Shock and Vibration Digest. *Washington, D.C.*
- Soviet Aeronautics. (Translation of Izvestiya VUZ. Aviatsionnaya Tekhnika by Faraday Press, *New York*)
- Soviet Applied Mechanics. (Translation of Prikladnaya Mekhanika by Faraday Press, *New York*)
- Soviet Automatic Control. (Translation of Avtomatika by the Institute of Electrical and Electronics Engineers, *New York*)
- Strain. *London*
- Studii de Geotehnica, Fundatii si Constructii Hidrotehnice. *Bucharest*
- Studii si Cercetari Matematice. *Bucharest*
- Svenska Tekniska Vetenskapsakademien i Finland, Meddelande. *Helsinki*
- SVIM. *Caracas*
- Technica. *Basel*
- Tecnologia Naval. *Rio de Janeiro*
- Teplofizika i Teplotekhnika. *Kiev*
- Transactions of the Society of Rheology. *New York*
- Transportation Engineering Journal of ASCE, Proceedings of the American Society of Civil Engineers. *Ann Arbor, Michigan*
- VDI Berichte. *Dusseldorf*
- VDI-Z, Zeitschrift fuer die Gesamte Technik. *Dusseldorf*. (Formerly: VDI Zeitschrift)
- World Textile Abstracts. *Manchester, U.K.*
- Zeitschrift fur Meteorologie. *Berlin*



**APPLIED MECHANICS REVIEWS**

**VOL. 23, NO. 4, SECTION 2, APRIL 1970**



